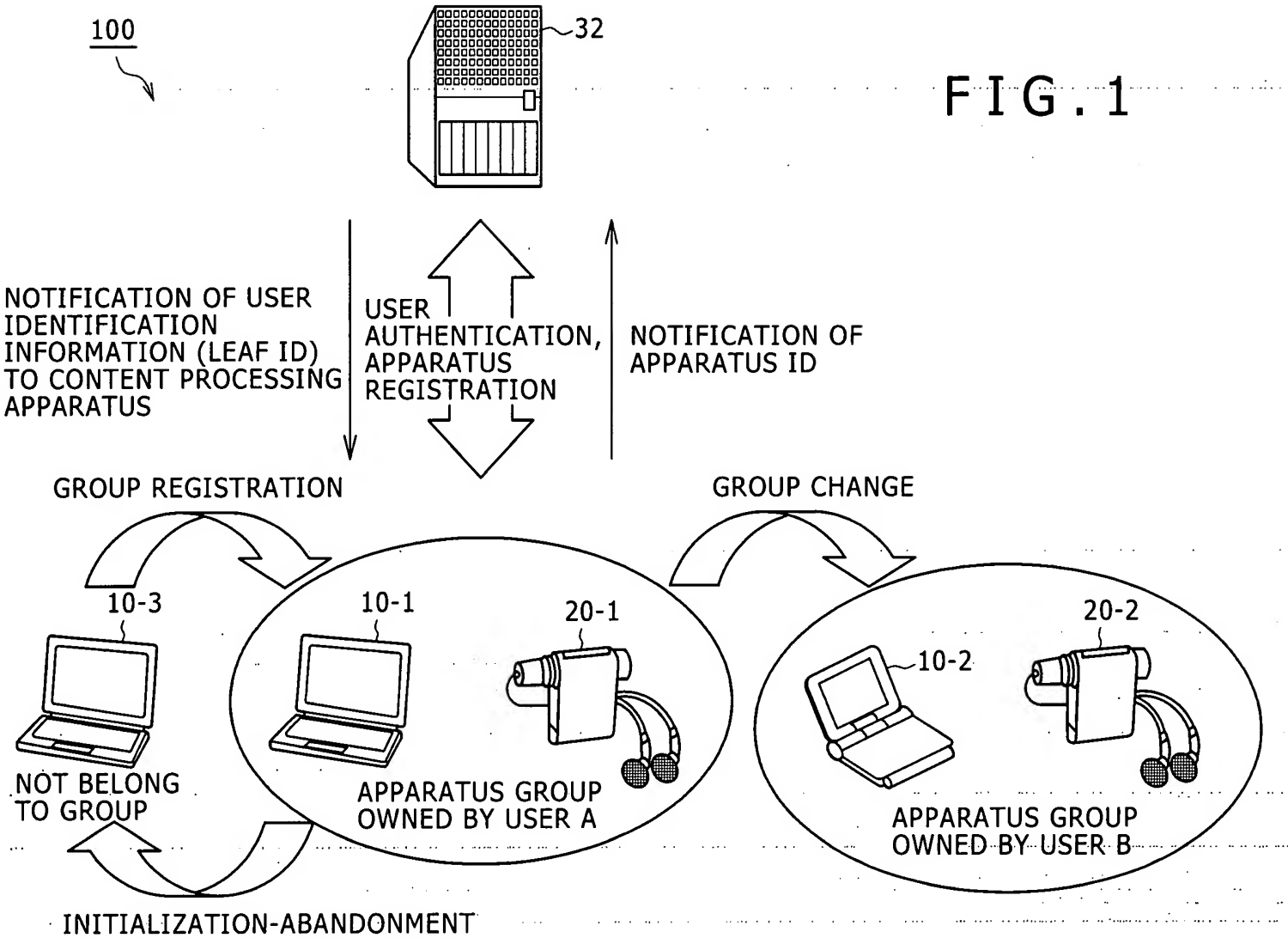

FIG. 1

Oblon, Spivak, et al.
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FIG. 2

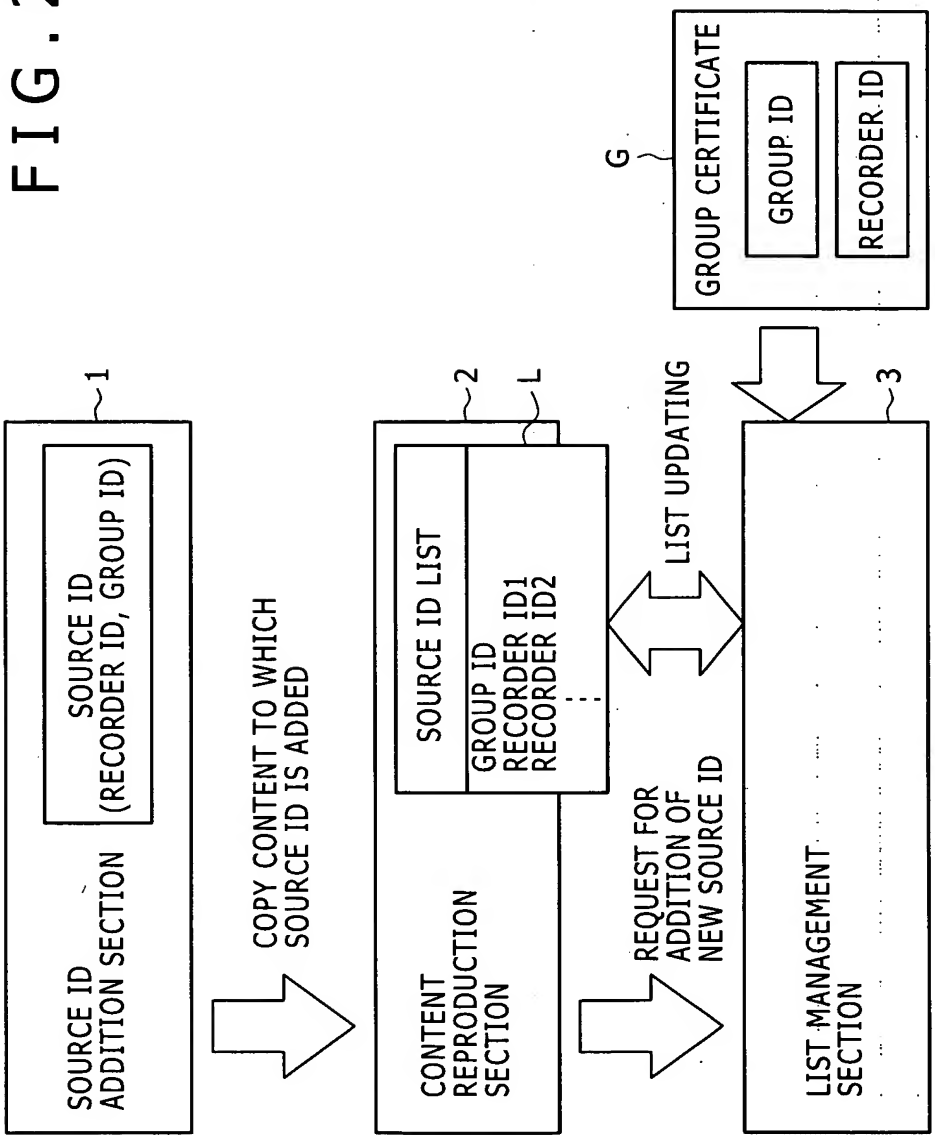
GROUP CERTIFICATE
GROUP ID
RECORDER ID
G
1
SOURCE ID
(RECORDER ID, GROUP ID)
SOURCE ID
ADDITION SECTION
COPY CONTENT TO WHICH
SOURCE ID IS ADDED
2
L
SOURCE ID LIST
GROUP ID
RECORDER ID1
RECORDER ID2
CONTENT
REPRODUCTION
SECTION
LIST UPDATING
REQUEST FOR
ADDITION OF
NEW SOURCE ID
3
LIST MANAGEMENT
SECTION

FIG. 3

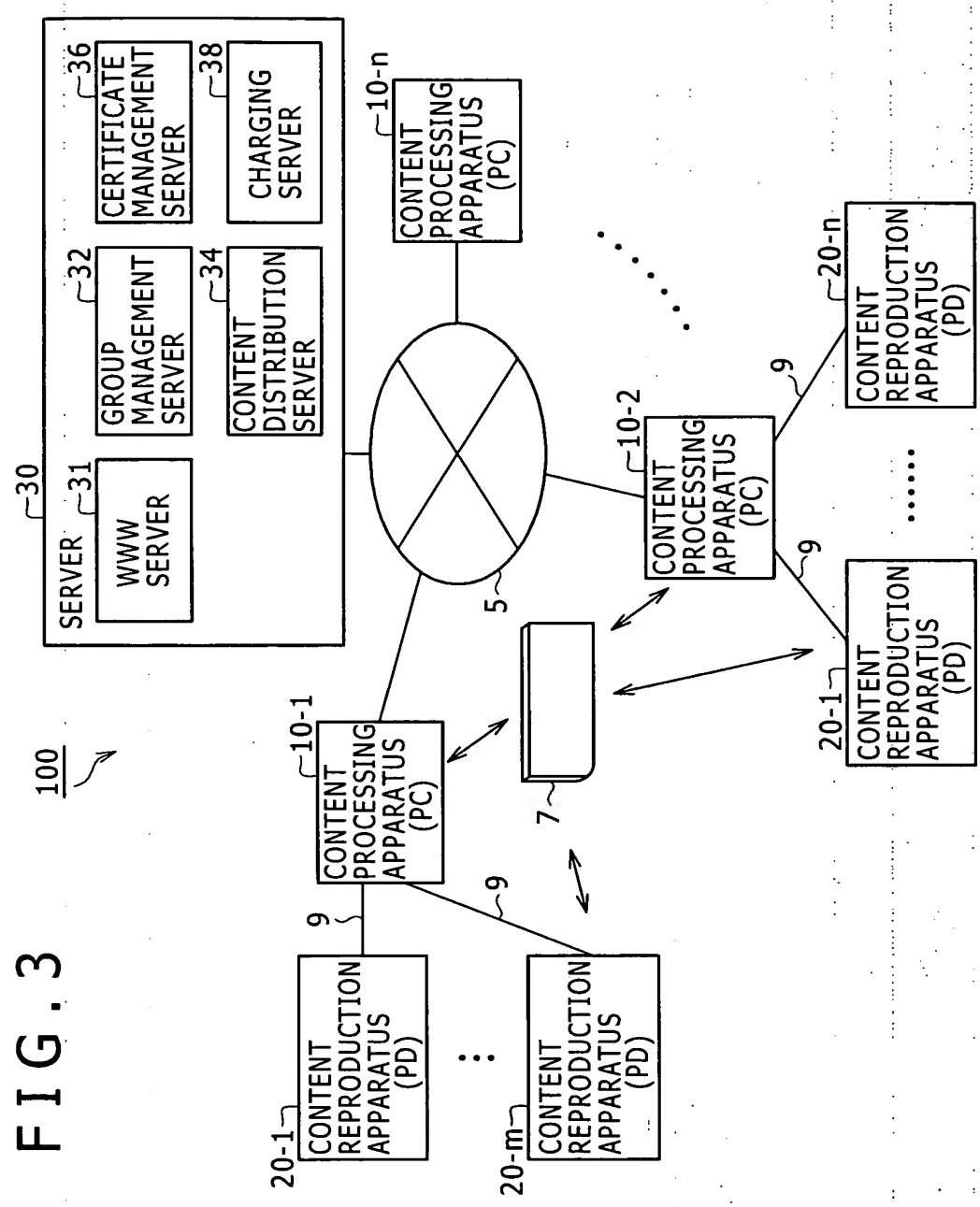
100
SERVER
30
WWW SERVER
31
GROUP MANAGEMENT SERVER
32
CONTENT DISTRIBUTION SERVER
34
CERTIFICATE MANAGEMENT SERVER
36
CHARGING SERVER
38
5
7
9
CONTENT PROCESSING APPARATUS (PC)
10-1
CONTENT PROCESSING APPARATUS (PC)
10-2
CONTENT PROCESSING APPARATUS (PC)
10-n
CONTENT REPRODUCTION APPARATUS (PD)
20-1
CONTENT REPRODUCTION APPARATUS (PD)
20-m
CONTENT REPRODUCTION APPARATUS (PD)
20-1
CONTENT REPRODUCTION APPARATUS (PD)
20-n

FIG. 4

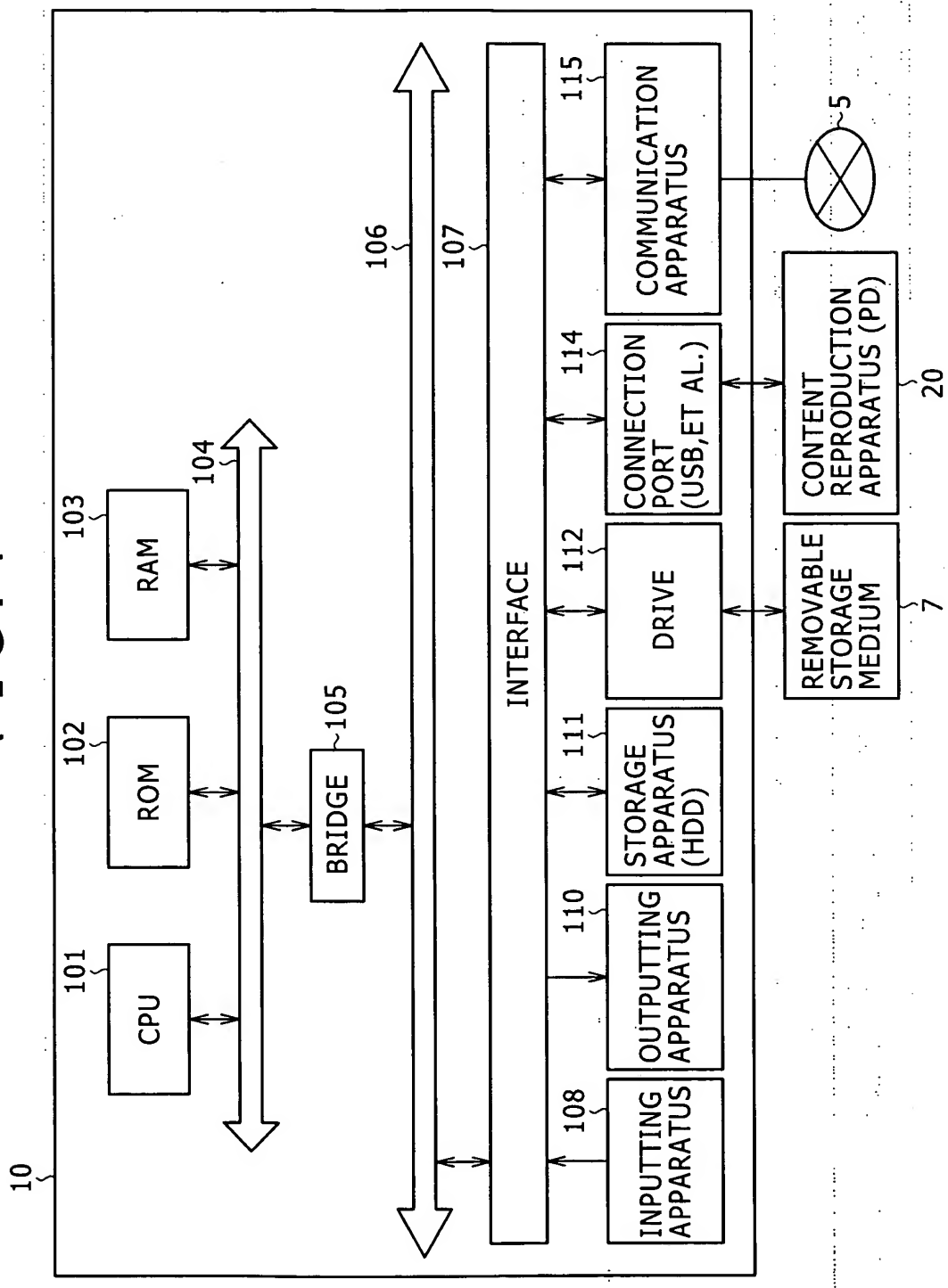
10
CPU
101
ROM
102
RAM
103
104
BRIDGE
105
106
107
INTERFACE
108
INPUTTING APPARATUS
110
OUTPUTTING APPARATUS
111
STORAGE APPARATUS (HDD)
112
DRIVE
REMOVABLE STORAGE MEDIUM
7
114
CONNECTION PORT (USB,ET AL.)
115
COMMUNICATION APPARATUS
5
CONTENT REPRODUCTION APPARATUS (PD)
20

FIG. 5

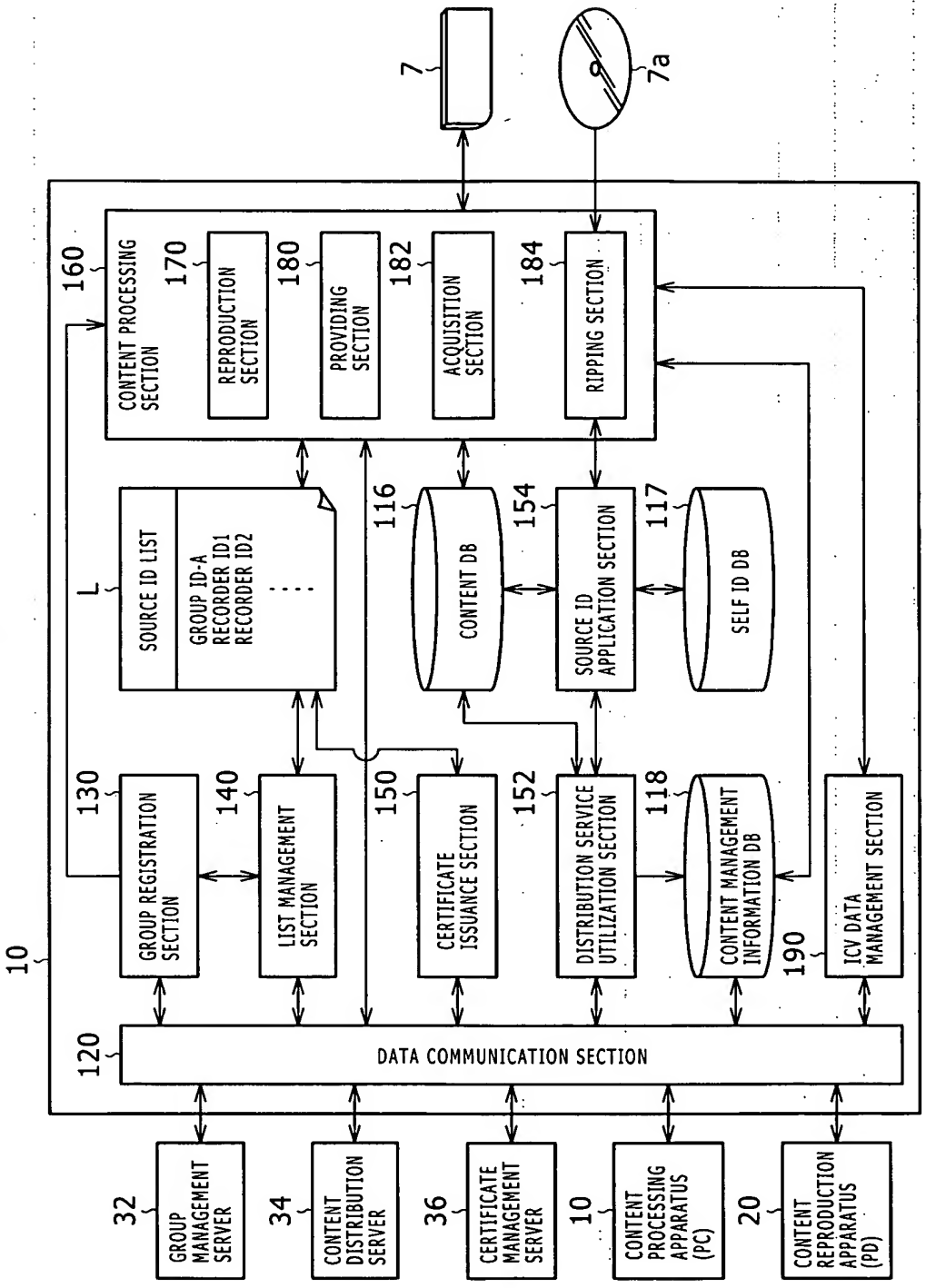
7
7a
10
160
CONTENT PROCESSING SECTION
170
REPRODUCTION SECTION
180
PROVIDING SECTION
182
ACQUISITION SECTION
184
RIPPING SECTION
L
SOURCE ID LIST
GROUP ID-A
RECORDER ID1
RECORDER ID2
116
CONTENT DB
154
SOURCE ID APPLICATION SECTION
117
SELF ID DB
130
GROUP REGISTRATION SECTION
140
LIST MANAGEMENT SECTION
150
CERTIFICATE ISSUANCE SECTION
152
DISTRIBUTION SERVICE UTILIZATION SECTION
118
CONTENT MANAGEMENT INFORMATION DB
190
ICV DATA MANAGEMENT SECTION
120
DATA COMMUNICATION SECTION
32
GROUP MANAGEMENT SERVER
34
CONTENT DISTRIBUTION SERVER
36
CERTIFICATE MANAGEMENT SERVER
10
CONTENT PROCESSING APPARATUS (PC)
20
CONTENT REPRODUCTION APPARATUS (PD)

FIG. 6A

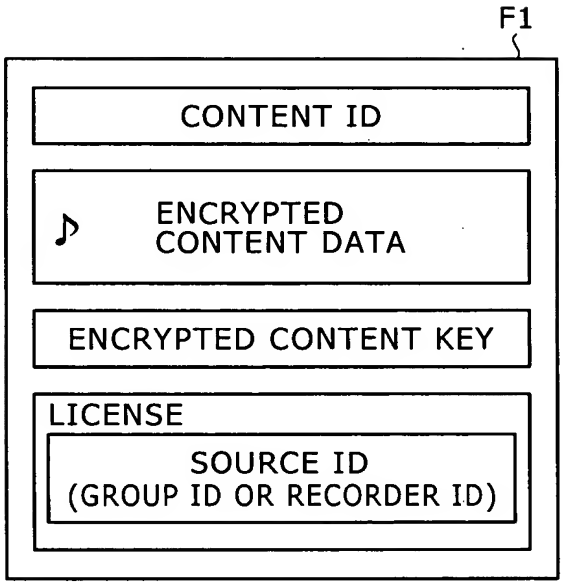
F1
CONTENT ID
ENCRYPTED CONTENT DATA
ENCRYPTED CONTENT KEY
LICENSE
SOURCE ID (GROUP ID OR RECORDER ID)

FIG. 6B

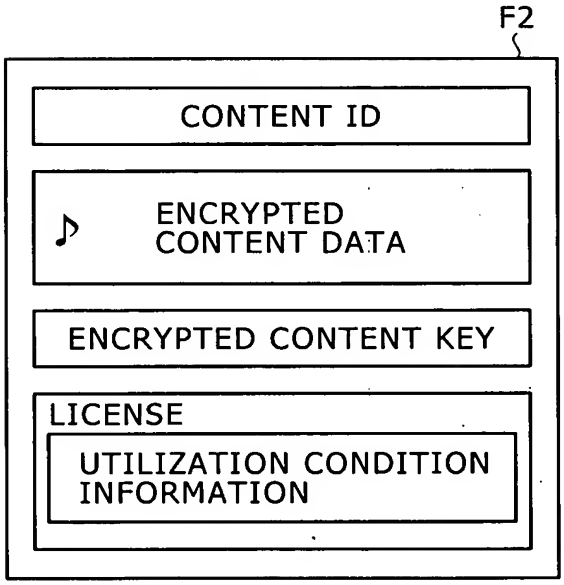
F2
CONTENT ID
ENCRYPTED CONTENT DATA
ENCRYPTED CONTENT KEY
LICENSE
UTILIZATION CONDITION INFORMATION

FIG. 7

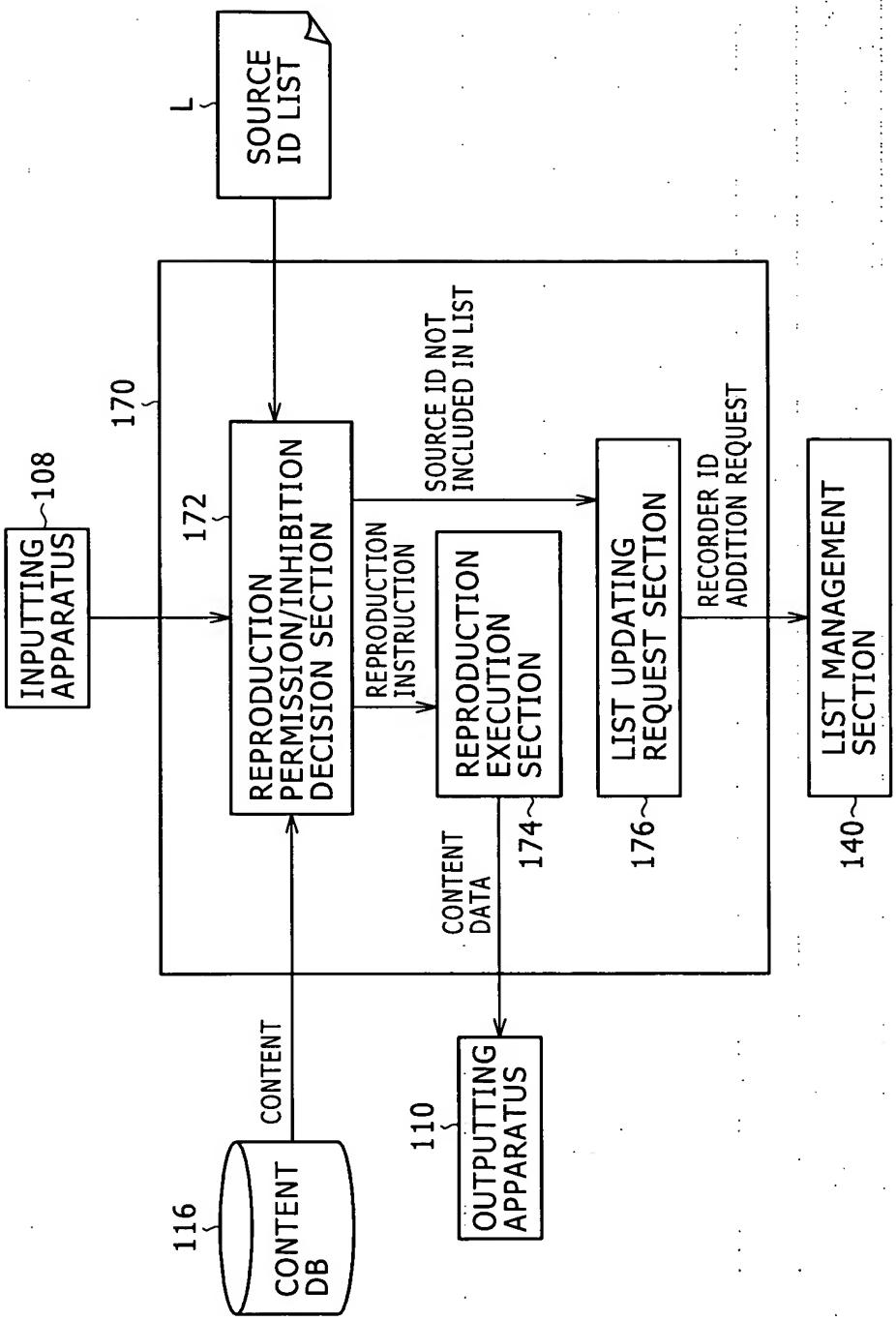
L
SOURCE ID LIST
170
108
INPUTTING APPARATUS
172
REPRODUCTION PERMISSION/INHIBITION DECISION SECTION
SOURCE ID NOT INCLUDED IN LIST
REPRODUCTION INSTRUCTION
REPRODUCTION EXECUTION SECTION
LIST UPDATING REQUEST SECTION
RECORDER ID ADDITION REQUEST
LIST MANAGEMENT SECTION
CONTENT DATA
174
176
140
CONTENT
110
OUTPUTTING APPARATUS
116
CONTENT DB

FIG. 8

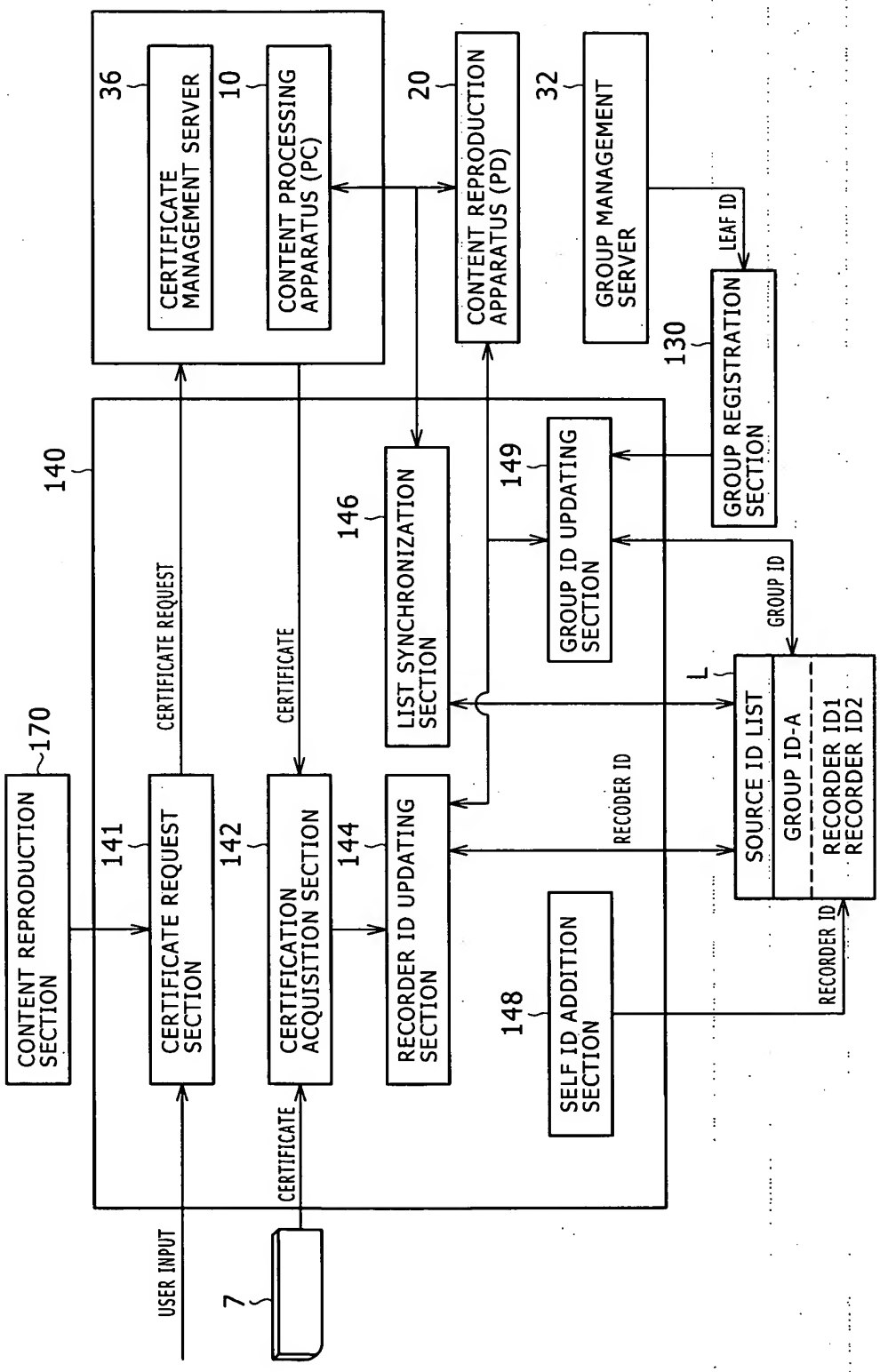
36
CERTIFICATE MANAGEMENT SERVER
10
CONTENT PROCESSING APPARATUS (PC)
20
CONTENT REPRODUCTION APPARATUS (PD)
32
GROUP MANAGEMENT SERVER
LEAF ID
130
GROUP REGISTRATION SECTION
140
146
LIST SYNCHRONIZATION SECTION
149
GROUP ID UPDATING SECTION
GROUP ID
L
SOURCE ID LIST
GROUP ID-A
RECORDER ID1
RECORDER ID2
RECODER ID
170
CONTENT REPRODUCTION SECTION
141
CERTIFICATE REQUEST SECTION
142
CERTIFICATION ACQUISITION SECTION
144
RECORDER ID UPDATING SECTION
148
SELF ID ADDITION SECTION
CERTIFICATE REQUEST
CERTIFICATE
CERTIFICATE
RECORDER ID
USER INPUT
7

FIG. 9

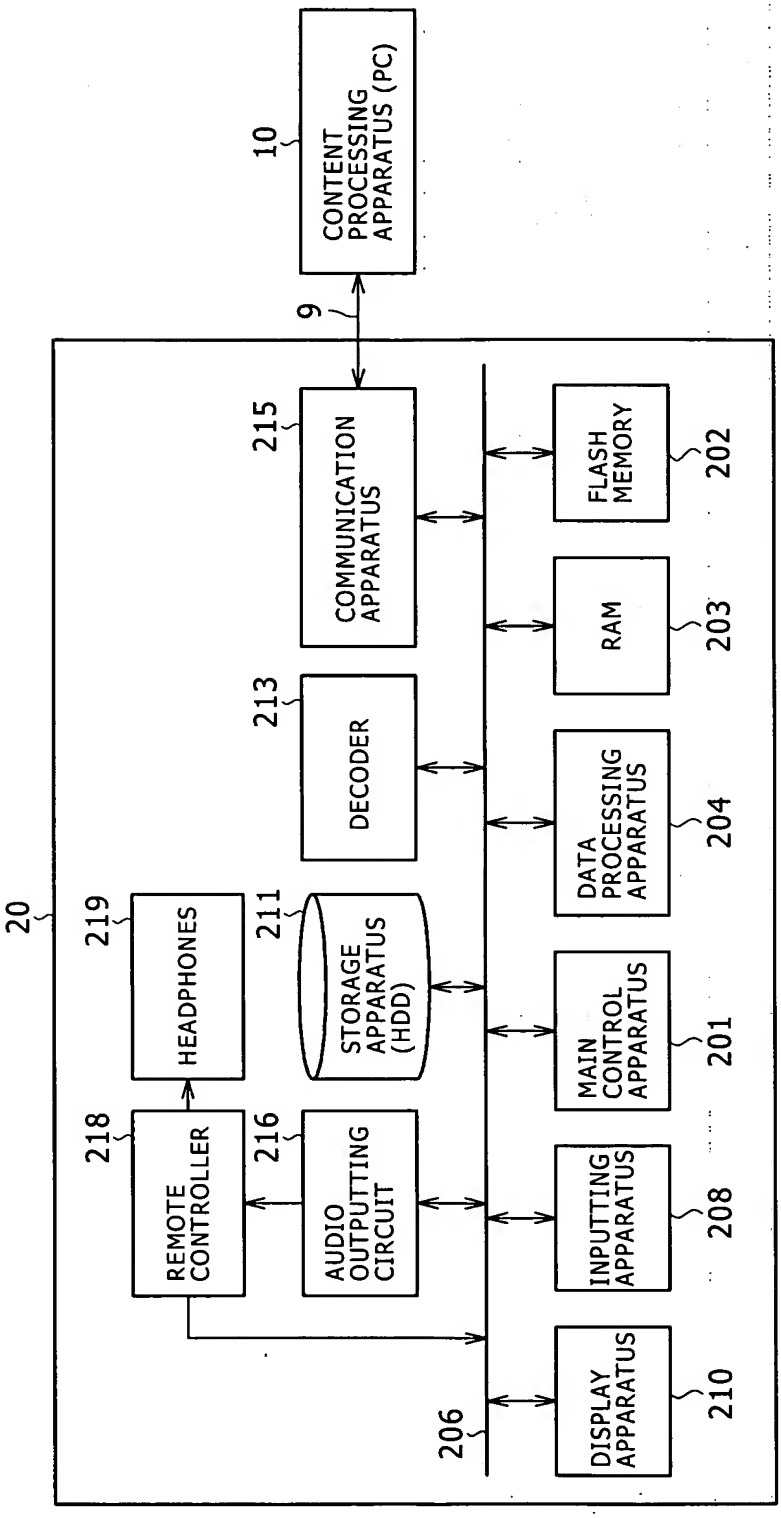
10
CONTENT PROCESSING APPARATUS (PC)
9
20
215
COMMUNICATION APPARATUS
213
DECODER
211
STORAGE APPARATUS (HDD)
219
HEADPHONES
218
REMOTE CONTROLLER
216
AUDIO OUTPUTTING CIRCUIT
206
DISPLAY APPARATUS
210
INPUTTING APPARATUS
208
MAIN CONTROL APPARATUS
201
DATA PROCESSING APPARATUS
204
RAM
203
FLASH MEMORY
202

FIG. 10

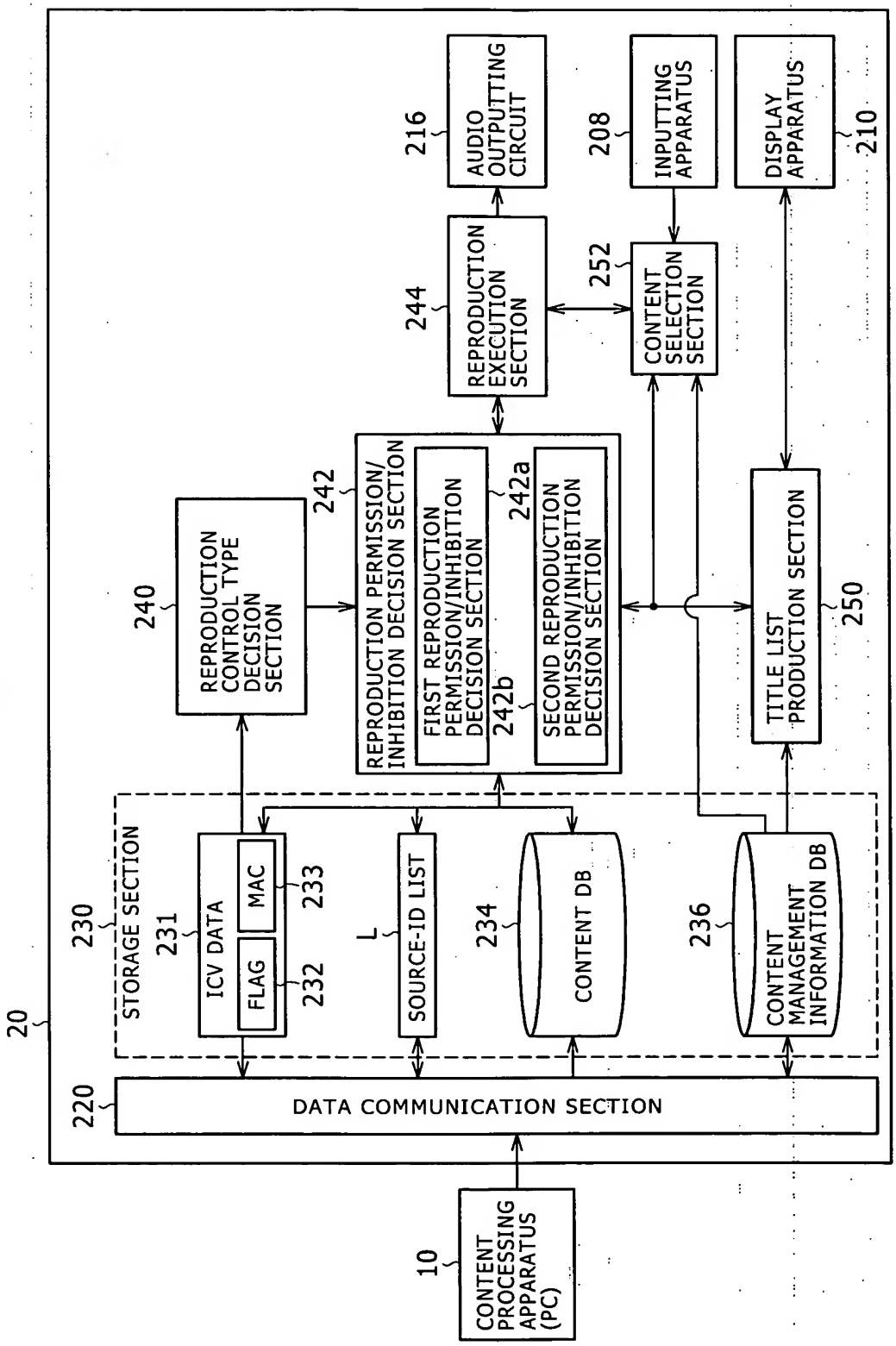
20
10
CONTENT PROCESSING APPARATUS (PC)
220
DATA COMMUNICATION SECTION
230
STORAGE SECTION
231
ICV DATA
MAC
233
FLAG
232
L
SOURCE-ID LIST
234
CONTENT DB
236
CONTENT MANAGEMENT INFORMATION DB
240
REPRODUCTION CONTROL TYPE DECISION SECTION
242
REPRODUCTION PERMISSION/ INHIBITION DECISION SECTION
242a
FIRST REPRODUCTION PERMISSION/INHIBITION DECISION SECTION
242b
SECOND REPRODUCTION PERMISSION/INHIBITION DECISION SECTION
244
REPRODUCTION EXECUTION SECTION
250
TITLE LIST PRODUCTION SECTION
252
CONTENT SELECTION SECTION
216
AUDIO OUTPUTTING CIRCUIT
208
INPUTTING APPARATUS
210
DISPLAY APPARATUS

FIG. 11

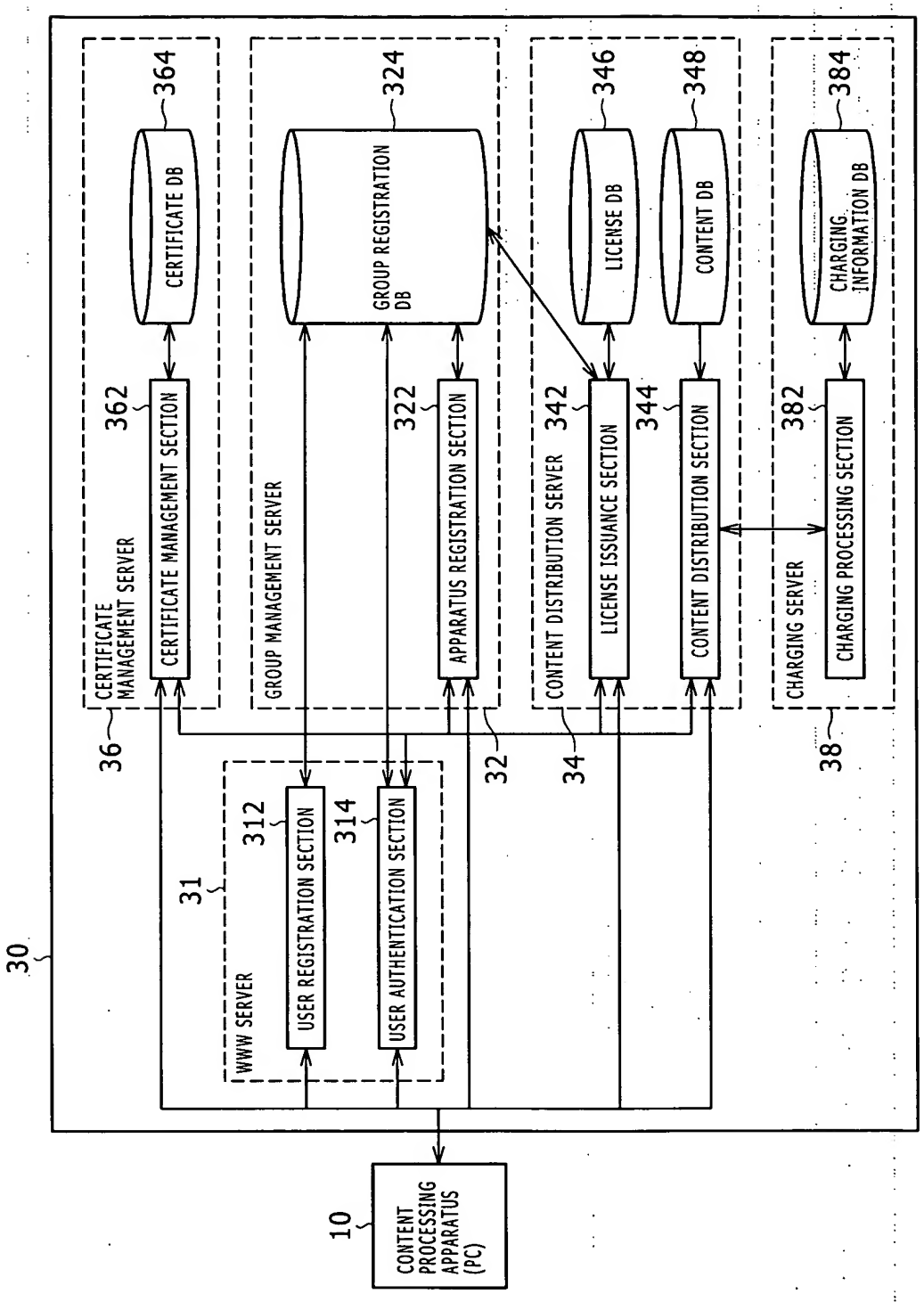
30
CERTIFICATE MANAGEMENT SERVER
362
CERTIFICATE MANAGEMENT SECTION
364
CERTIFICATE DB
36
GROUP MANAGEMENT SERVER
322
APPARATUS REGISTRATION SECTION
324
GROUP REGISTRATION DB
32
CONTENT DISTRIBUTION SERVER
342
LICENSE ISSUANCE SECTION
344
CONTENT DISTRIBUTION SECTION
346
LICENSE DB
348
CONTENT DB
34
CHARGING SERVER
382
CHARGING PROCESSING SECTION
384
CHARGING INFORMATION DB
38
31
WWW SERVER
312
USER REGISTRATION SECTION
314
USER AUTHENTICATION SECTION
10
CONTENT PROCESSING APPARATUS (PC)

FIG. 12

3241 USER ID	3242 CREDIT CARD NUMBER	3243 LEAF ID	3244 APPARATUS ID	3245 RECORDER ID
Yamada Taro	XXX-XXXX	LEAF ID-A	TERMINAL ID1	RECORDER ID1
			TERMINAL ID2	RECORDER ID2
			DEVICE ID1	—
			DEVICE ID2	—
Suzuki Jiro	YYY-YYYY	LEAF ID-B	TERMINAL ID10	RECORDER ID10
			DEVICE ID12	—
			DEVICE ID13	—
• • •	• • •	• • •	• • •	• • •

FIG. 13

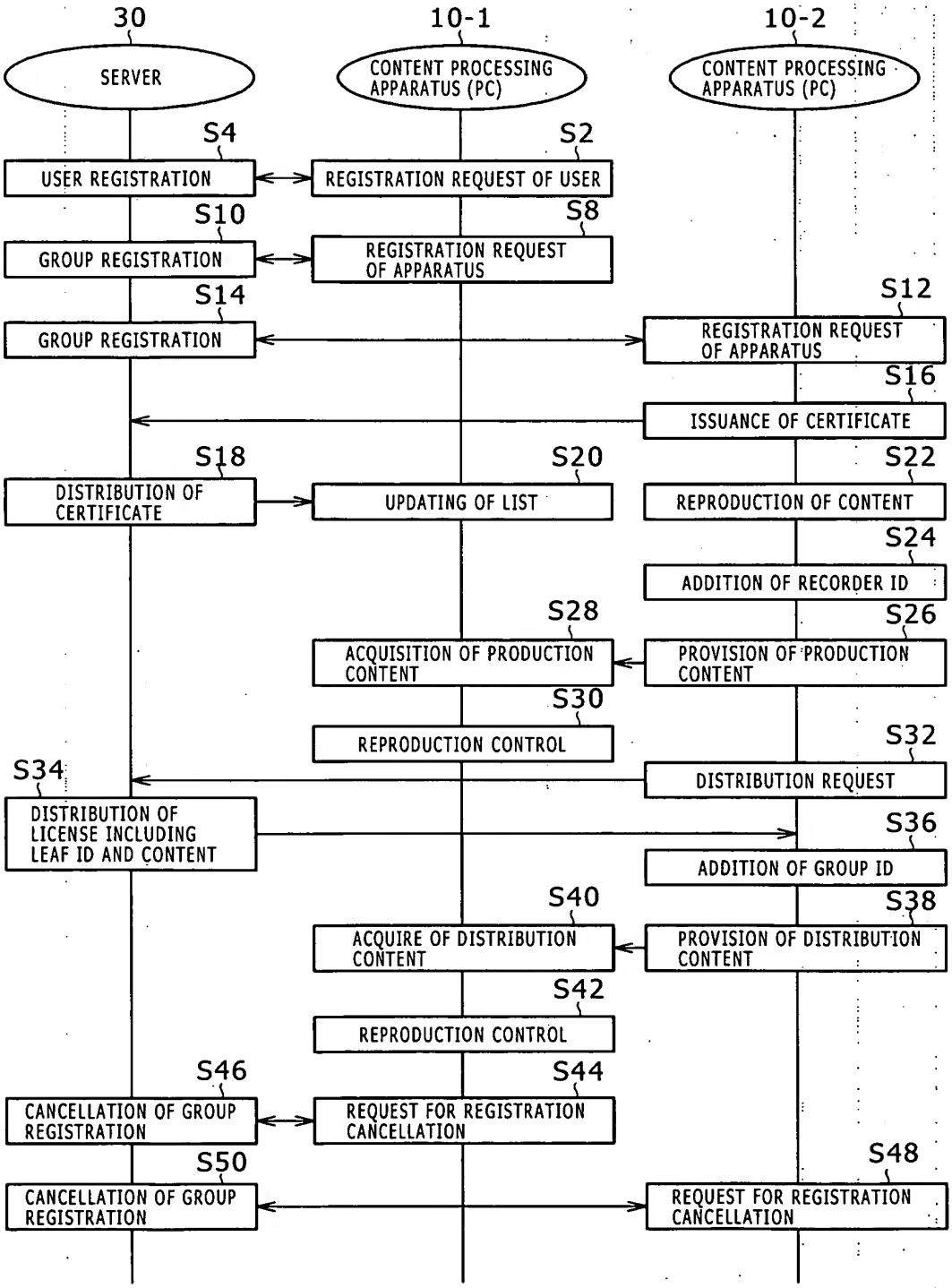
30
10-1
10-2
SERVER
CONTENT PROCESSING APPARATUS (PC)
CONTENT PROCESSING APPARATUS (PC)
S4
USER REGISTRATION
S2
REGISTRATION REQUEST OF USER
S10
GROUP REGISTRATION
S8
REGISTRATION REQUEST OF APPARATUS
S14
GROUP REGISTRATION
S12
REGISTRATION REQUEST OF APPARATUS
S16
ISSUANCE OF CERTIFICATE
S18
DISTRIBUTION OF CERTIFICATE
S20
UPDATING OF LIST
S22
REPRODUCTION OF CONTENT
S24
ADDITION OF RECORDER ID
S28
ACQUISITION OF PRODUCTION CONTENT
S26
PROVISION OF PRODUCTION CONTENT
S30
REPRODUCTION CONTROL
S32
DISTRIBUTION REQUEST
S34
DISTRIBUTION OF LICENSE INCLUDING LEAF ID AND CONTENT
S36
ADDITION OF GROUP ID
S40
ACQUIRE OF DISTRIBUTION CONTENT
S38
PROVISION OF DISTRIBUTION CONTENT
S42
REPRODUCTION CONTROL
S46
CANCELLATION OF GROUP REGISTRATION
S44
REQUEST FOR REGISTRATION CANCELLATION
S50
CANCELLATION OF GROUP REGISTRATION
S48
REQUEST FOR REGISTRATION CANCELLATION

FIG. 14

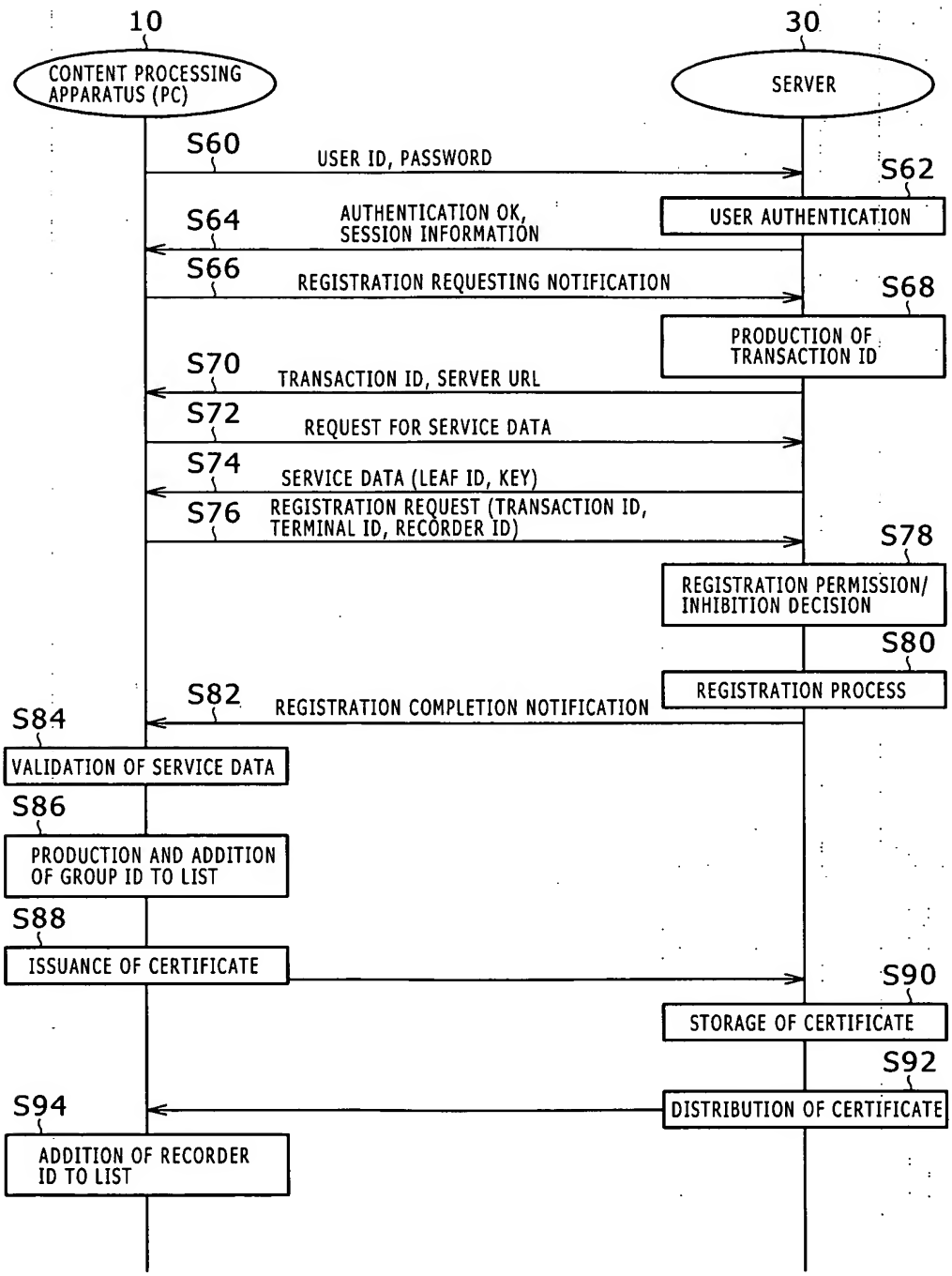
10
CONTENT PROCESSING APPARATUS (PC)
30
SERVER
S60
USER ID, PASSWORD
S62
USER AUTHENTICATION
S64
AUTHENTICATION OK, SESSION INFORMATION
S66
REGISTRATION REQUESTING NOTIFICATION
S68
PRODUCTION OF TRANSACTION ID
S70
TRANSACTION ID, SERVER URL
S72
REQUEST FOR SERVICE DATA
S74
SERVICE DATA (LEAF ID, KEY)
S76
REGISTRATION REQUEST (TRANSACTION ID, TERMINAL ID, RECORDER ID)
S78
REGISTRATION PERMISSION/ INHIBITION DECISION
S80
REGISTRATION PROCESS
S82
REGISTRATION COMPLETION NOTIFICATION
S84
VALIDATION OF SERVICE DATA
S86
PRODUCTION AND ADDITION OF GROUP ID TO LIST
S88
ISSUANCE OF CERTIFICATE
S90
STORAGE OF CERTIFICATE
S92
DISTRIBUTION OF CERTIFICATE
S94
ADDITION OF RECORDER ID TO LIST

FIG. 15

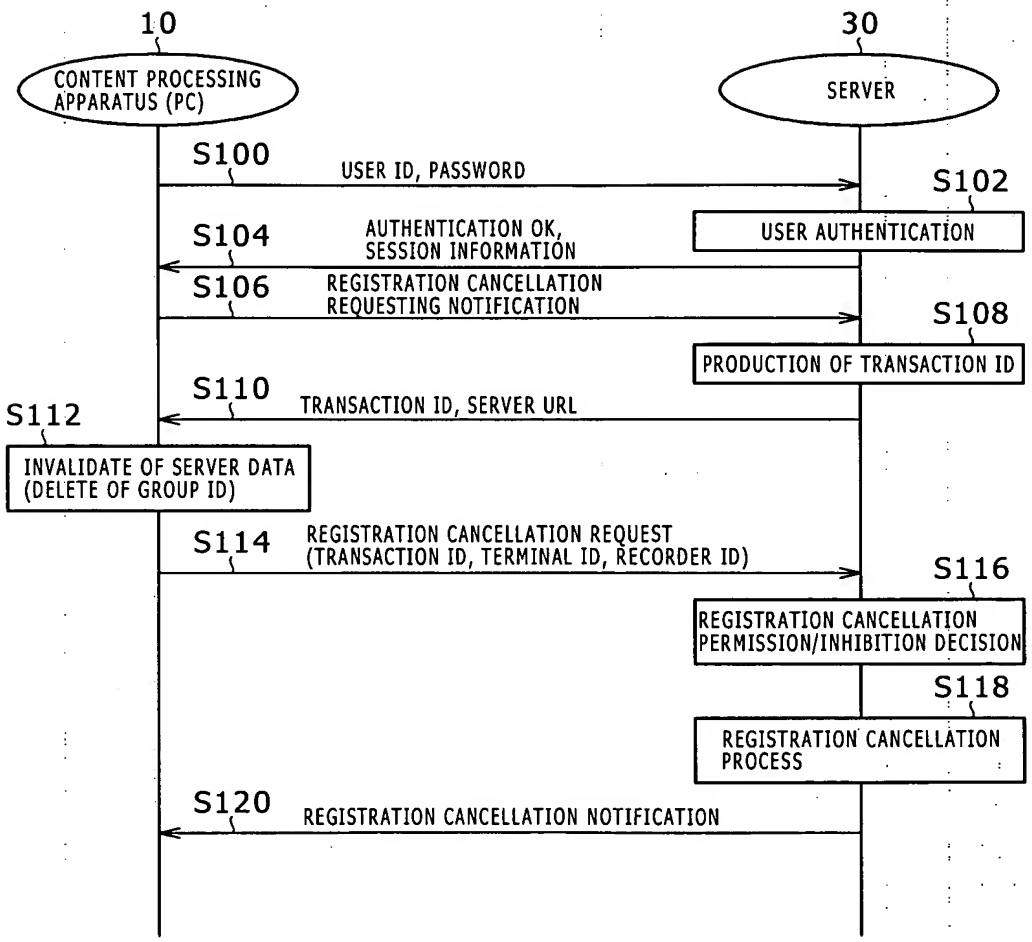
10
CONTENT PROCESSING APPARATUS (PC)
30
SERVER
S100
USER ID, PASSWORD
S102
USER AUTHENTICATION
S104
AUTHENTICATION OK, SESSION INFORMATION
S106
REGISTRATION CANCELLATION REQUESTING NOTIFICATION
S108
PRODUCTION OF TRANSACTION ID
S110
TRANSACTION ID, SERVER URL
S112
INVALIDATE OF SERVER DATA (DELETE OF GROUP ID)
S114
REGISTRATION CANCELLATION REQUEST (TRANSACTION ID, TERMINAL ID, RECORDER ID)
S116
REGISTRATION CANCELLATION PERMISSION/INHIBITION DECISION
S118
REGISTRATION CANCELLATION PROCESS
S120
REGISTRATION CANCELLATION NOTIFICATION

FIG. 16

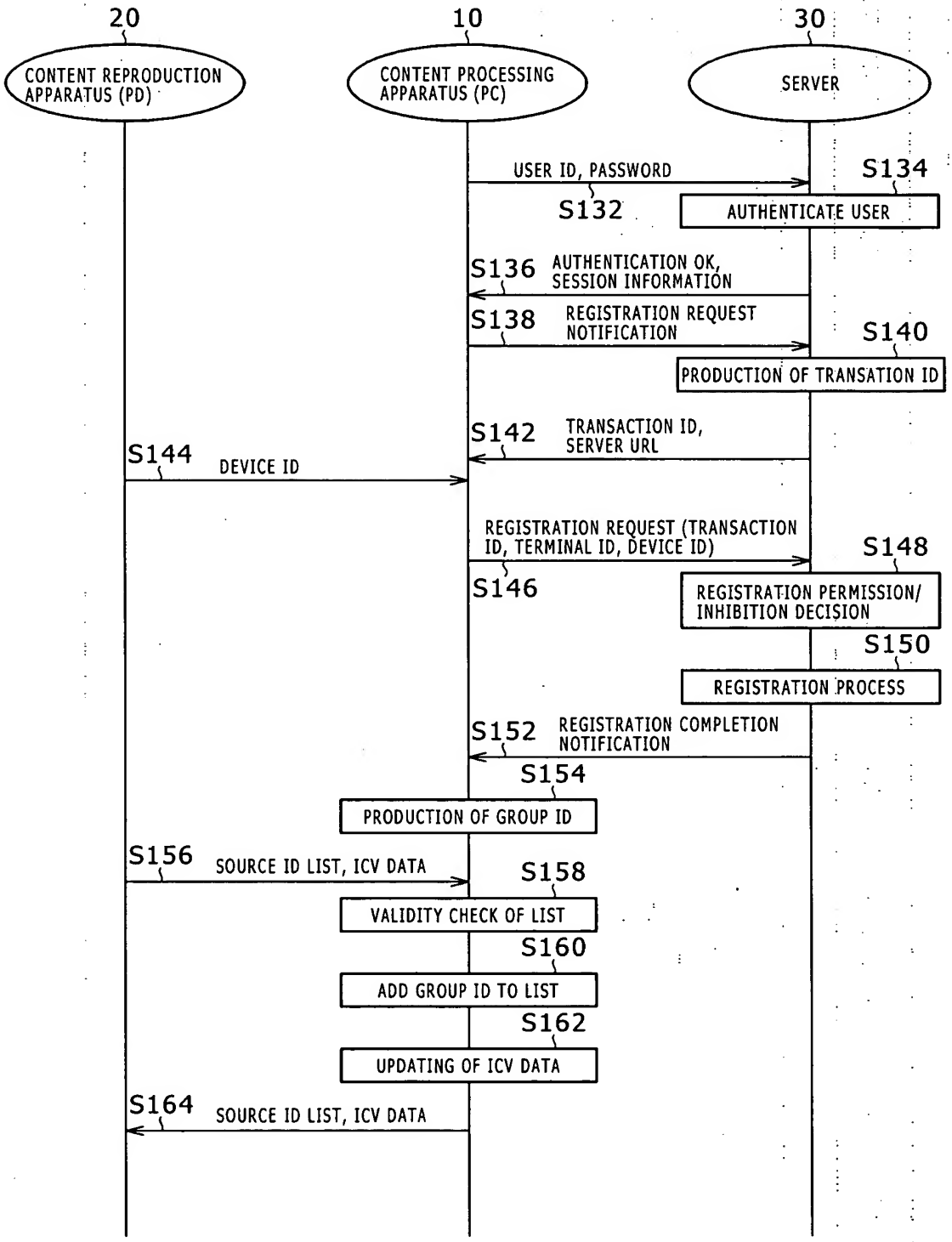
20
10
30
CONTENT REPRODUCTION APPARATUS (PD)
CONTENT PROCESSING APPARATUS (PC)
SERVER
USER ID, PASSWORD
S132
S134
AUTHENTICATE USER
S136
AUTHENTICATION OK, SESSION INFORMATION
S138
REGISTRATION REQUEST NOTIFICATION
S140
PRODUCTION OF TRANSATION ID
S142
TRANSACTION ID, SERVER URL
S144
DEVICE ID
REGISTRATION REQUEST (TRANSACTION ID, TERMINAL ID, DEVICE ID)
S146
S148
REGISTRATION PERMISSION/ INHIBITION DECISION
S150
REGISTRATION PROCESS
S152
REGISTRATION COMPLETION NOTIFICATION
S154
PRODUCTION OF GROUP ID
S156
SOURCE ID LIST, ICV DATA
S158
VALIDITY CHECK OF LIST
S160
ADD GROUP ID TO LIST
S162
UPDATING OF ICV DATA
S164
SOURCE ID LIST, ICV DATA

FIG. 17

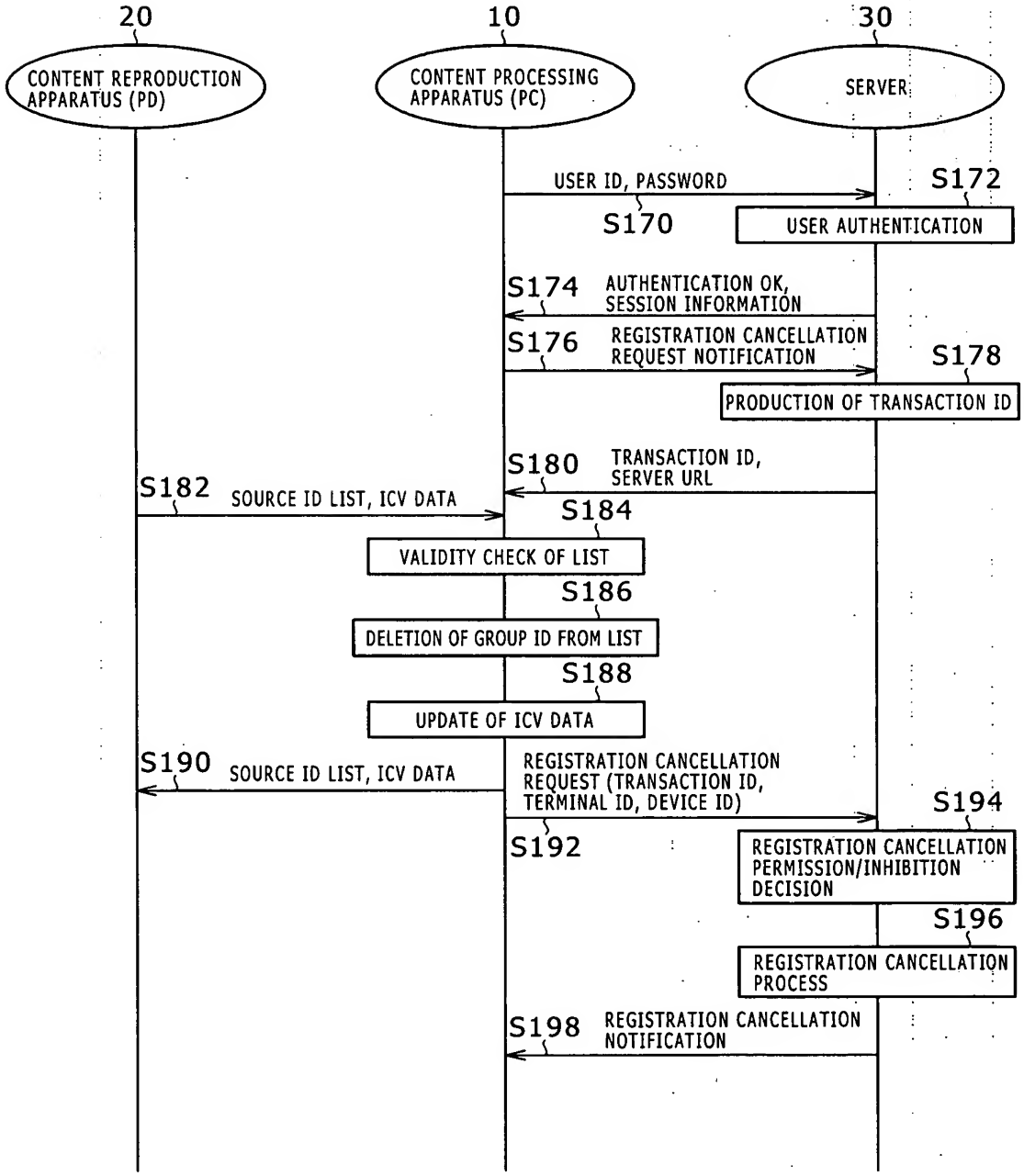
20
10
30
CONTENT REPRODUCTION APPARATUS (PD)
CONTENT PROCESSING APPARATUS (PC)
SERVER
USER ID, PASSWORD
S170
S172
USER AUTHENTICATION
S174
AUTHENTICATION OK, SESSION INFORMATION
S176
REGISTRATION CANCELLATION REQUEST NOTIFICATION
S178
PRODUCTION OF TRANSACTION ID
S180
TRANSACTION ID, SERVER URL
S182
SOURCE ID LIST, ICV DATA
S184
VALIDITY CHECK OF LIST
S186
DELETION OF GROUP ID FROM LIST
S188
UPDATE OF ICV DATA
S190
SOURCE ID LIST, ICV DATA
REGISTRATION CANCELLATION REQUEST (TRANSACTION ID, TERMINAL ID, DEVICE ID)
S192
S194
REGISTRATION CANCELLATION PERMISSION/INHIBITION DECISION
S196
REGISTRATION CANCELLATION PROCESS
S198
REGISTRATION CANCELLATION NOTIFICATION

FIG. 18

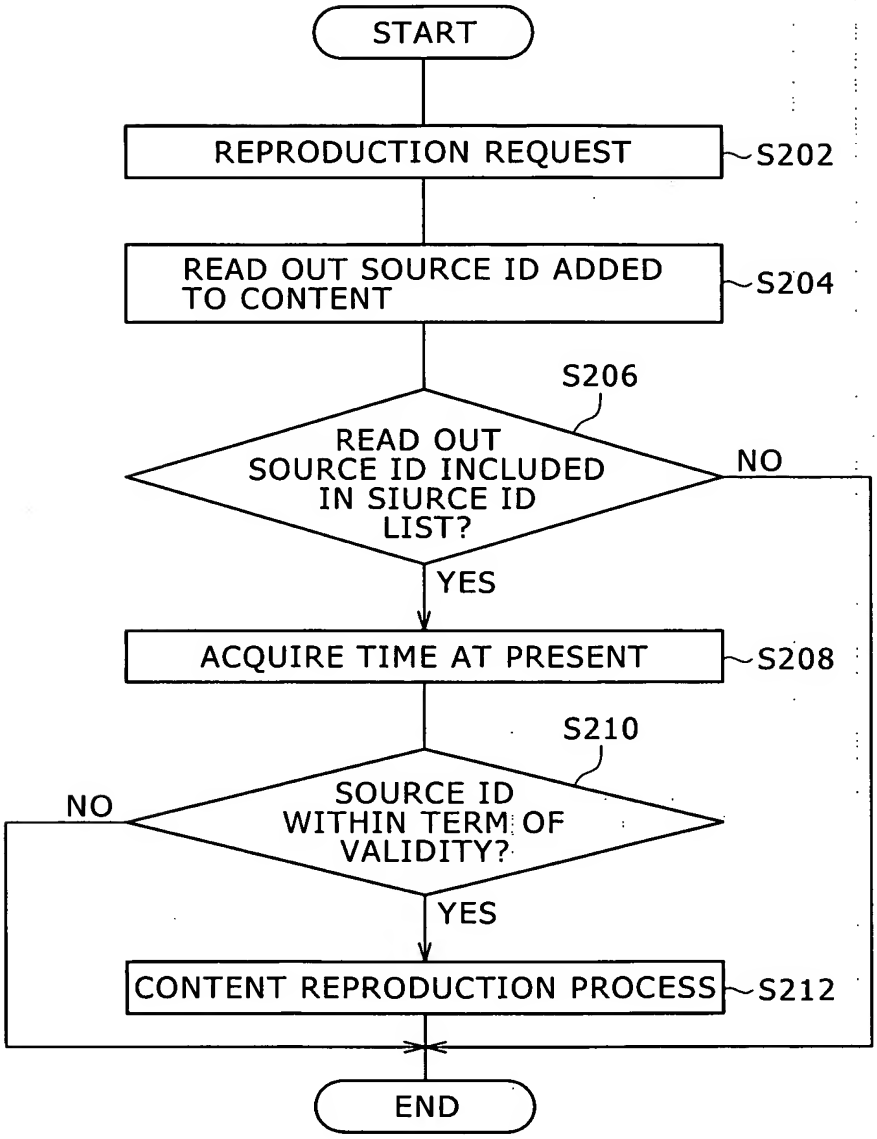
START
REPRODUCTION REQUEST
S202
READ OUT SOURCE ID ADDED TO CONTENT
S204
S206
READ OUT SOURCE ID INCLUDED IN SIURCE ID LIST?
NO
YES
ACQUIRE TIME AT PRESENT
S208
S210
SOURCE ID WITHIN TERM OF VALIDITY?
NO
YES
CONTENT REPRODUCTION PROCESS
S212
END

FIG. 19

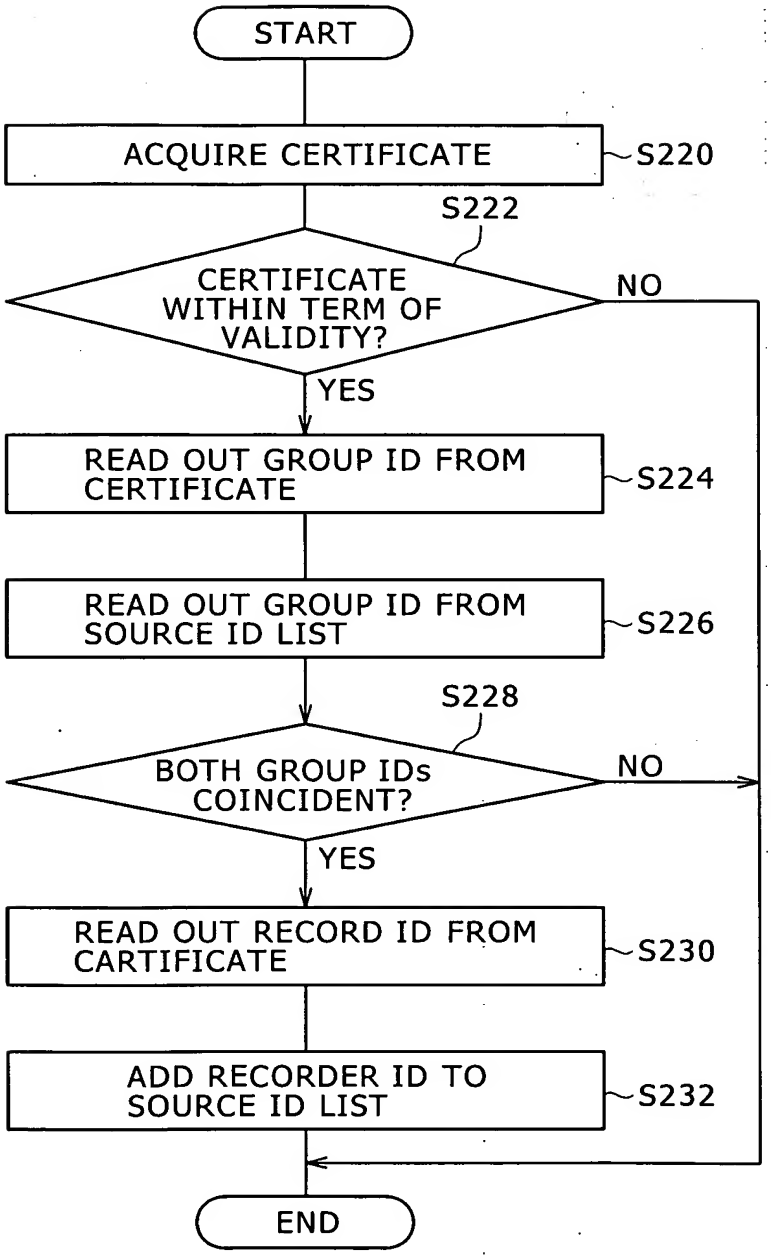
START
ACQUIRE CERTIFICATE
S220
S222
CERTIFICATE WITHIN TERM OF VALIDITY?
NO
YES
READ OUT GROUP ID FROM CERTIFICATE
S224
READ OUT GROUP ID FROM SOURCE ID LIST
S226
S228
BOTH GROUP IDs COINCIDENT?
NO
YES
READ OUT RECORD ID FROM CARTIFICATE
S230
ADD RECORDER ID TO SOURCE ID LIST
S232
END

FIG. 20A

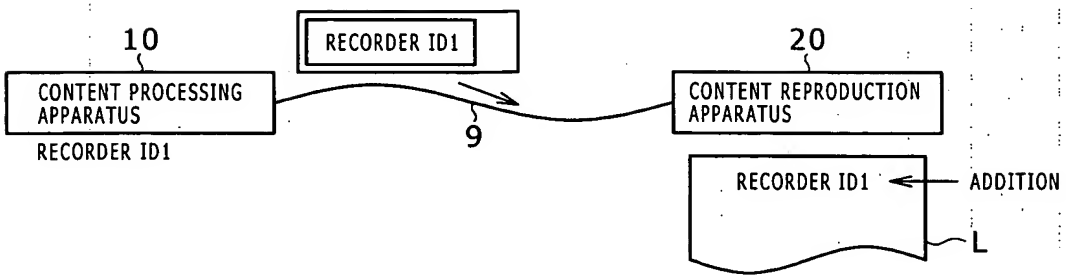

FIG. 20B

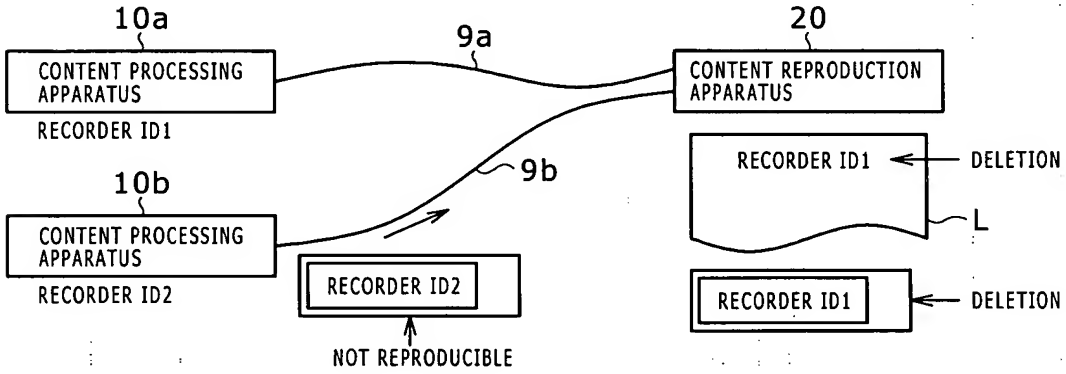

FIG. 20C

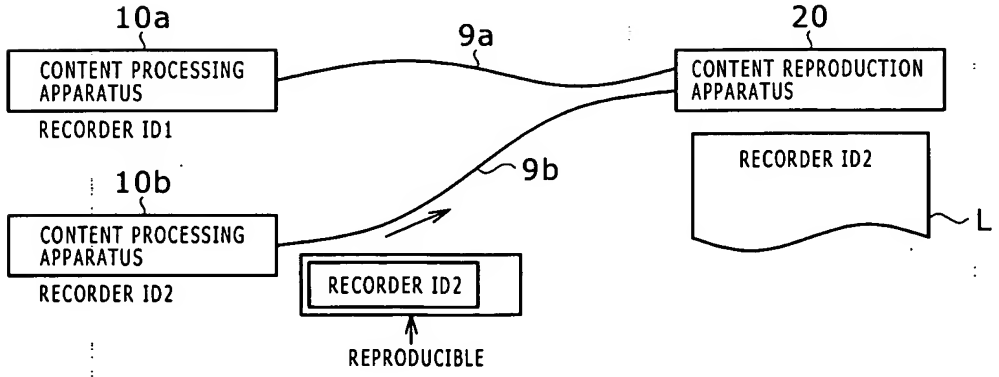

FIG. 21A

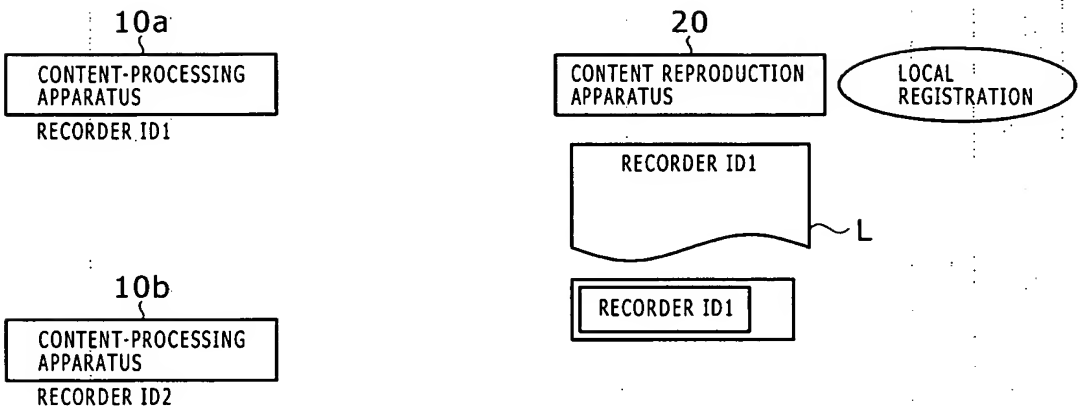

FIG. 21B

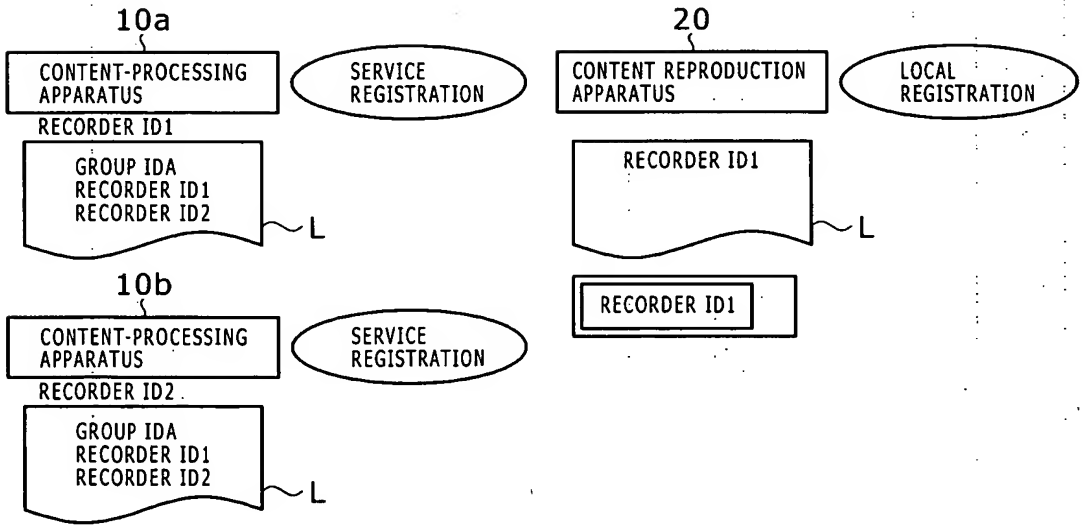

FIG. 21C

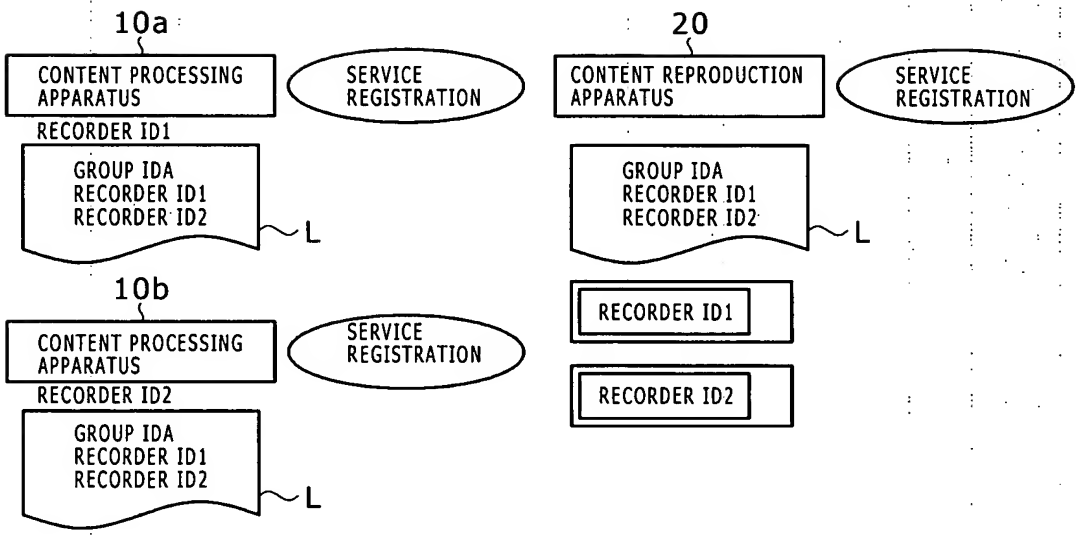

FIG. 22

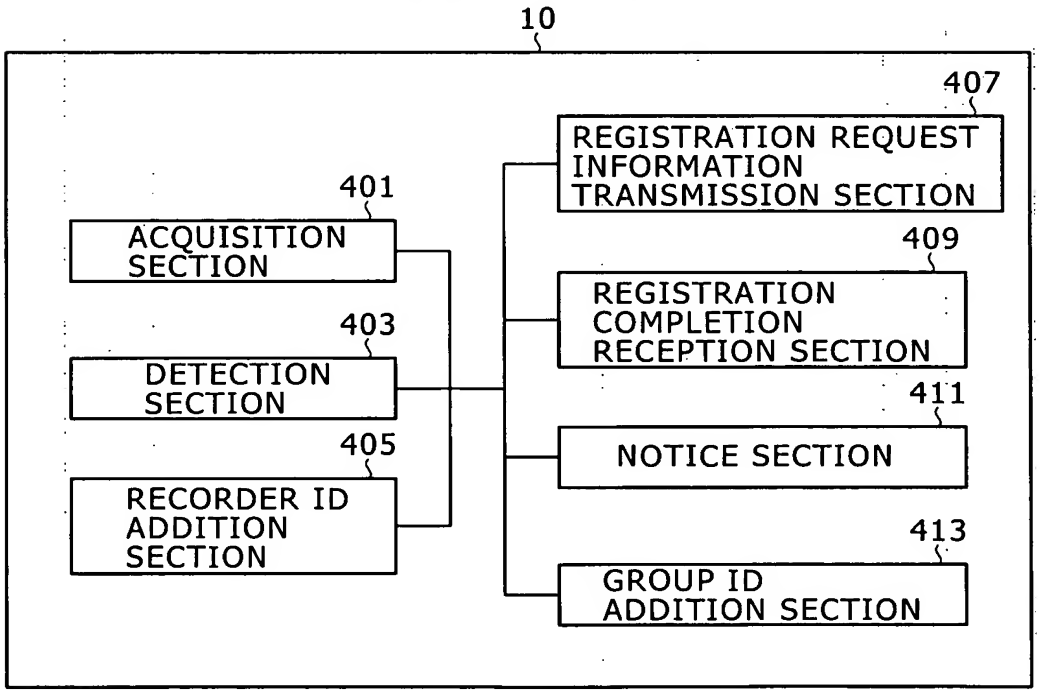

FIG. 23

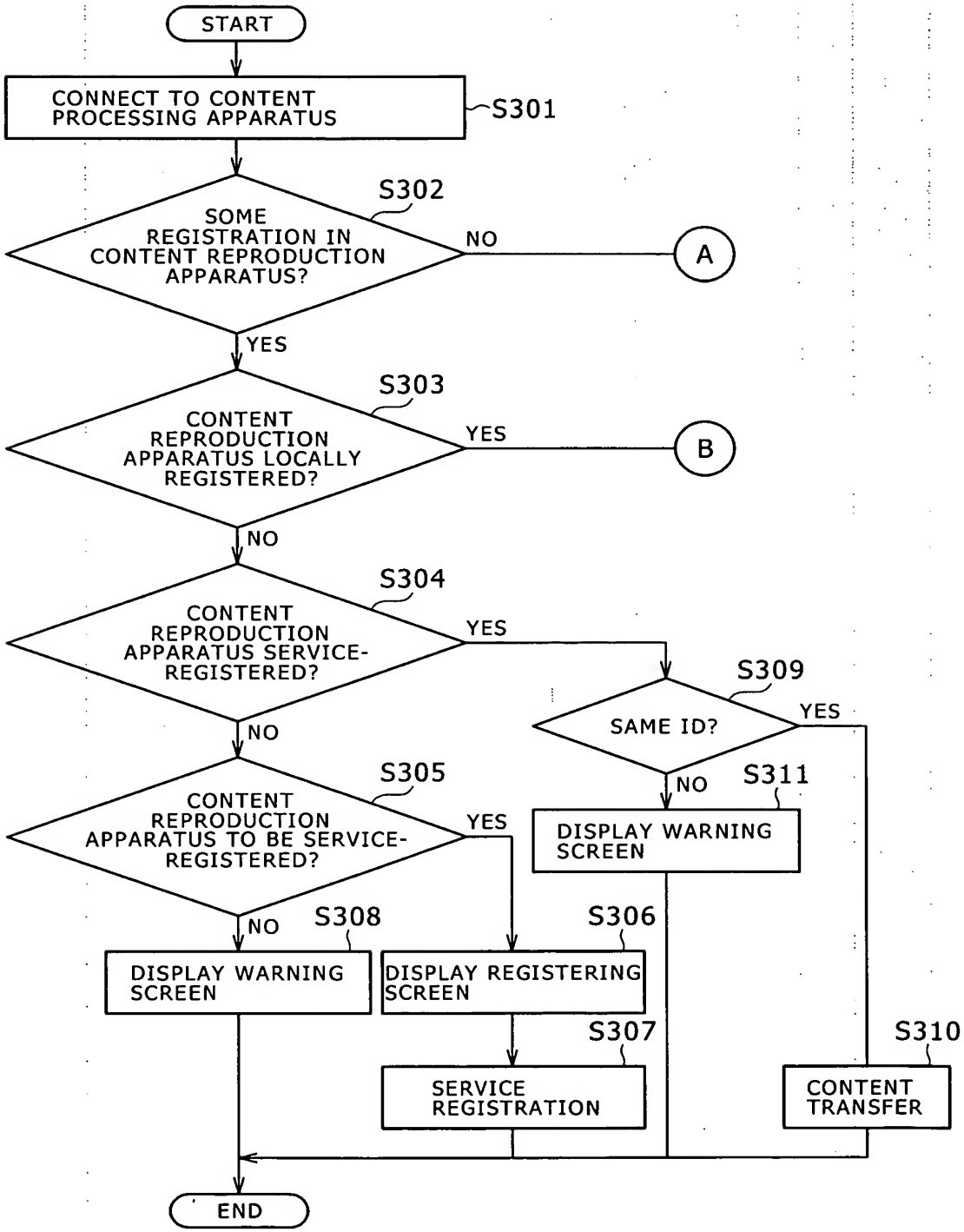
START
CONNECT TO CONTENT PROCESSING APPARATUS
S301
S302
SOME REGISTRATION IN CONTENT REPRODUCTION APPARATUS?
NO
A
YES
S303
CONTENT REPRODUCTION APPARATUS LOCALLY REGISTERED?
YES
B
NO
S304
CONTENT REPRODUCTION APPARATUS SERVICE-REGISTERED?
YES
NO
S309
SAME ID?
YES
NO
S311
DISPLAY WARNING SCREEN
S305
CONTENT REPRODUCTION APPARATUS TO BE SERVICE-REGISTERED?
YES
NO
S308
DISPLAY WARNING SCREEN
S306
DISPLAY REGISTERING SCREEN
S307
SERVICE REGISTRATION
S310
CONTENT TRANSFER
END

FIG. 24

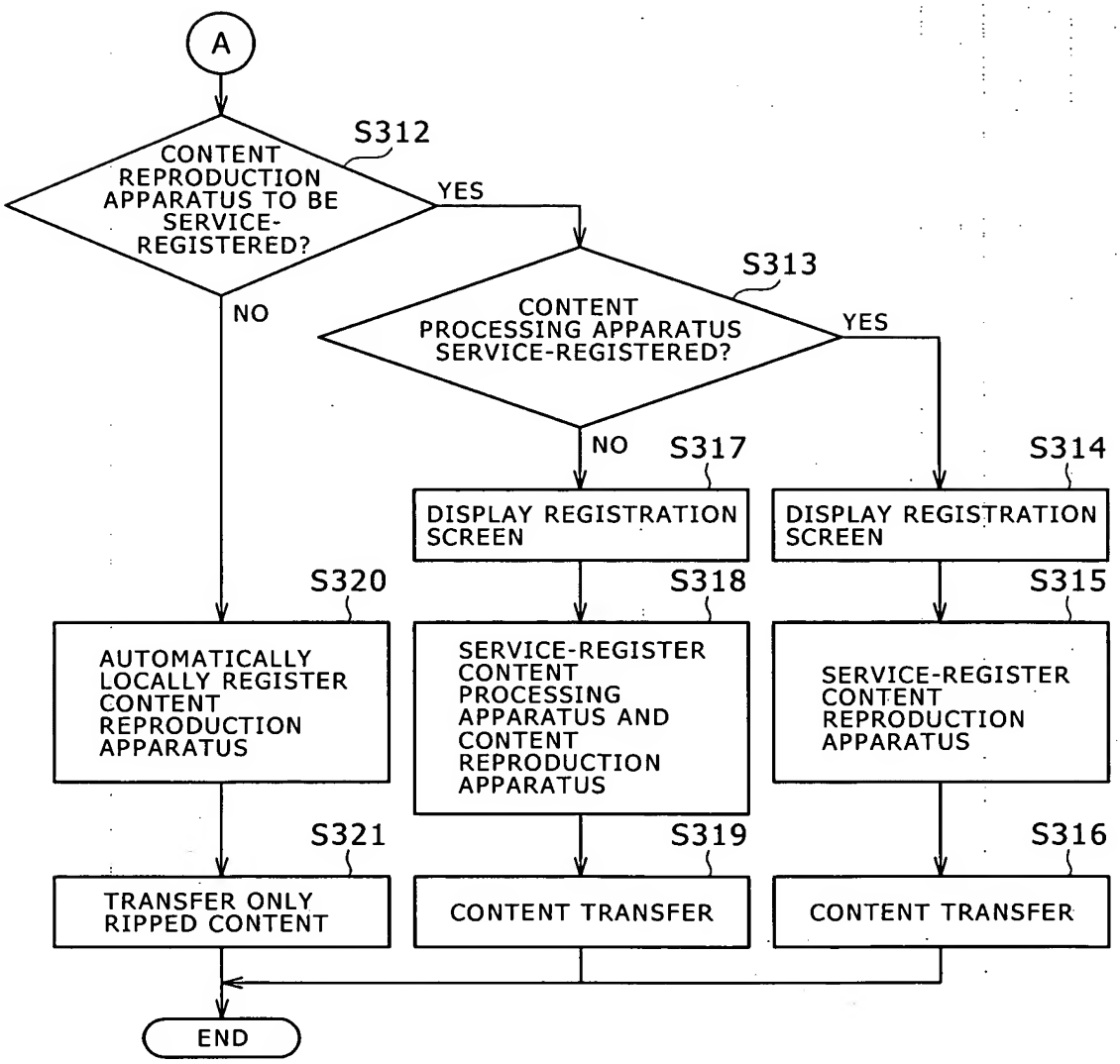
A
S312
CONTENT REPRODUCTION APPARATUS TO BE SERVICE-REGISTERED?
YES
NO
S313
CONTENT PROCESSING APPARATUS SERVICE-REGISTERED?
YES
NO
S317
DISPLAY REGISTRATION SCREEN
S314
DISPLAY REGISTRATION SCREEN
S320
AUTOMATICALLY LOCALLY REGISTER CONTENT REPRODUCTION APPARATUS
S318
SERVICE-REGISTER CONTENT PROCESSING APPARATUS AND CONTENT REPRODUCTION APPARATUS
S315
SERVICE-REGISTER CONTENT REPRODUCTION APPARATUS
S321
TRANSFER ONLY RIPPED CONTENT
S319
CONTENT TRANSFER
S316
CONTENT TRANSFER
END

FIG. 25

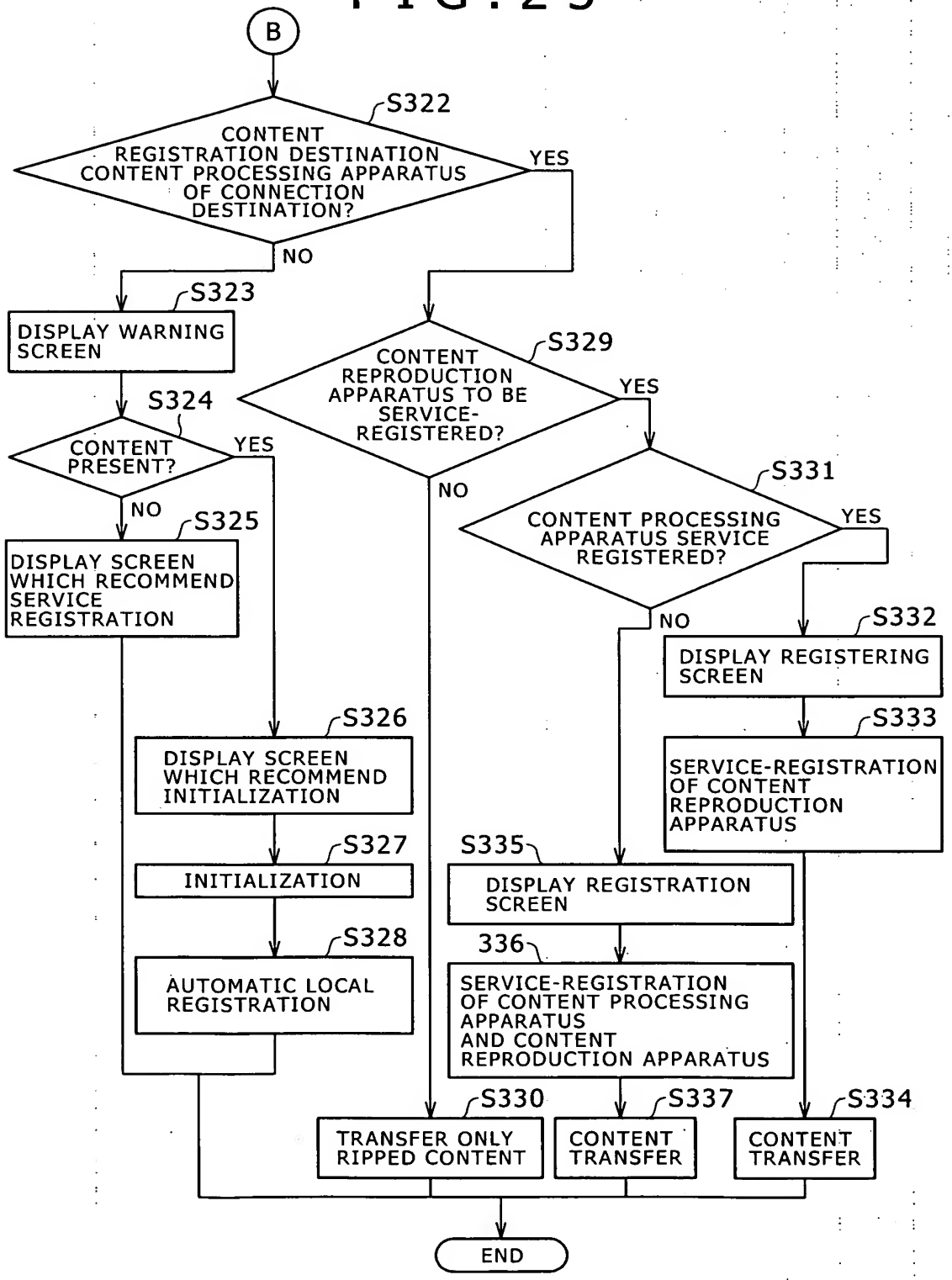
B
S322
CONTENT REGISTRATION DESTINATION CONTENT PROCESSING APPARATUS OF CONNECTION DESTINATION?
YES
NO
S323
DISPLAY WARNING SCREEN
S324
CONTENT PRESENT?
YES
NO
S325
DISPLAY SCREEN WHICH RECOMMEND SERVICE REGISTRATION
S326
DISPLAY SCREEN WHICH RECOMMEND INITIALIZATION
S327
INITIALIZATION
S328
AUTOMATIC LOCAL REGISTRATION
S329
CONTENT REPRODUCTION APPARATUS TO BE SERVICE-REGISTERED?
YES
NO
S331
CONTENT PROCESSING APPARATUS SERVICE REGISTERED?
YES
NO
S332
DISPLAY REGISTERING SCREEN
S333
SERVICE-REGISTRATION OF CONTENT REPRODUCTION APPARATUS
S335
DISPLAY REGISTRATION SCREEN
336
SERVICE-REGISTRATION OF CONTENT PROCESSING APPARATUS AND CONTENT REPRODUCTION APPARATUS
S330
TRANSFER ONLY RIPPED CONTENT
S337
CONTENT TRANSFER
S334
CONTENT TRANSFER
END

FIG. 26

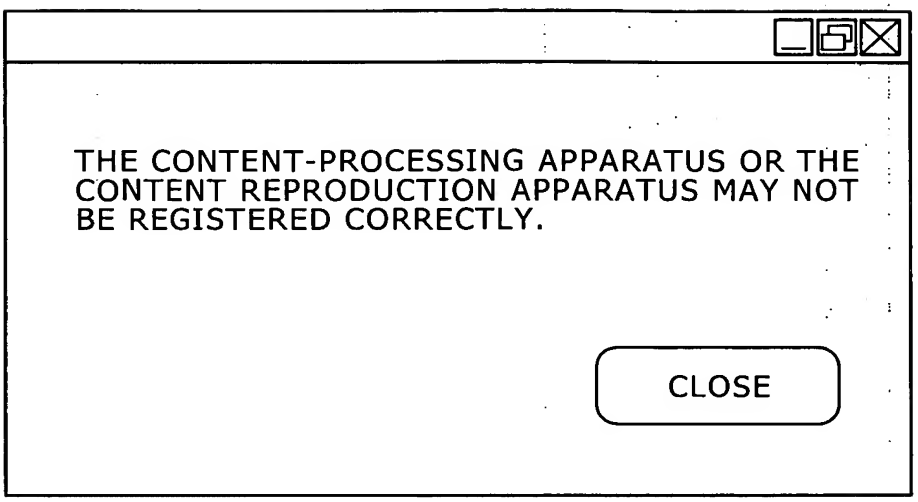
THE CONTENT-PROCESSING APPARATUS OR THE CONTENT REPRODUCTION APPARATUS MAY NOT BE REGISTERED CORRECTLY.
CLOSE

FIG. 27

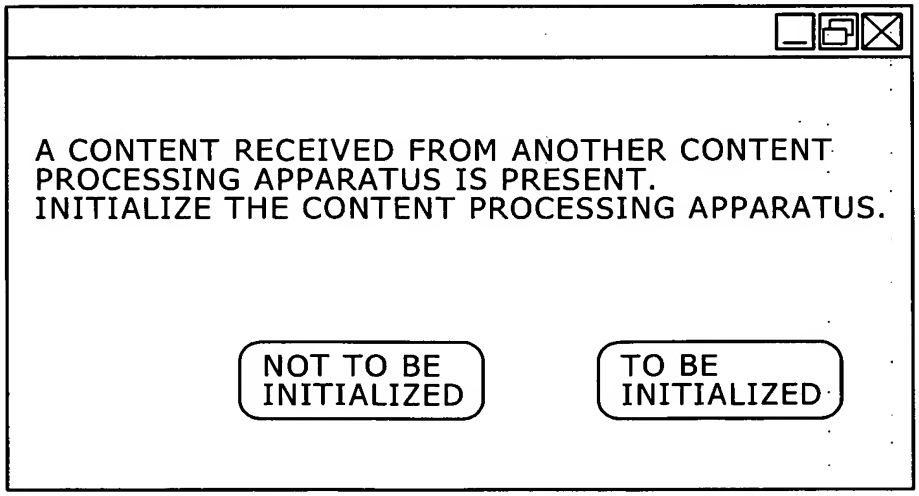
A CONTENT RECEIVED FROM ANOTHER CONTENT PROCESSING APPARATUS IS PRESENT.
INITIALIZE THE CONTENT PROCESSING APPARATUS.
NOT TO BE INITIALIZED
TO BE INITIALIZED

FIG. 28

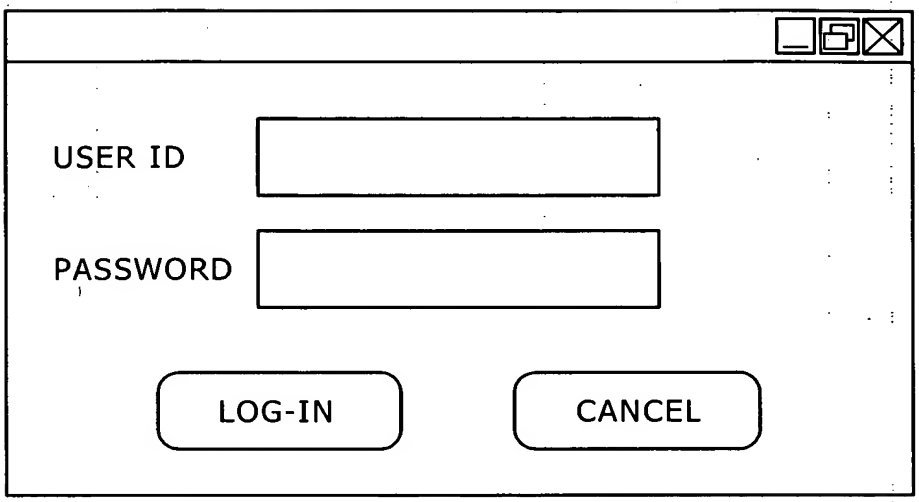
USER ID
PASSWORD
LOG-IN
CANCEL

FIG. 29

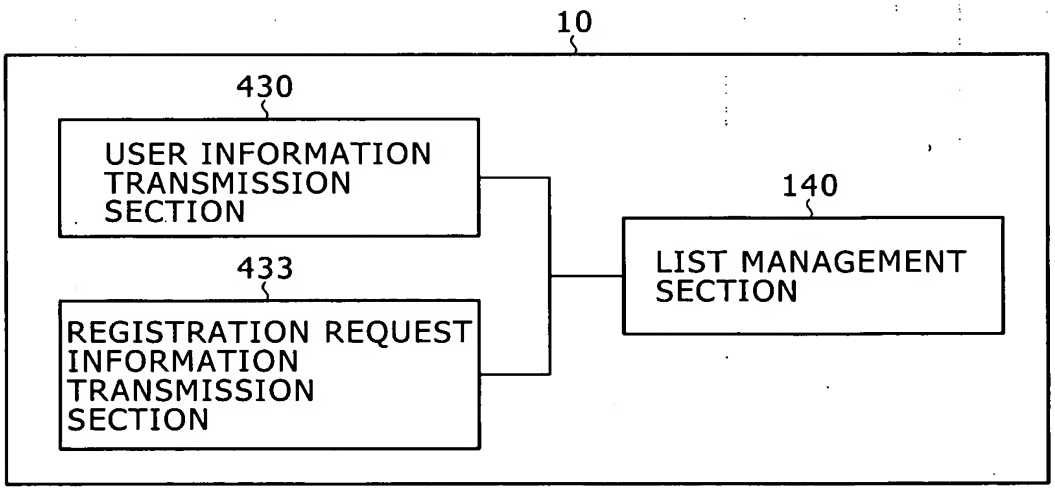
10
430
USER INFORMATION TRANSMISSION SECTION
433
REGISTRATION REQUEST INFORMATION TRANSMISSION SECTION
140
LIST MANAGEMENT SECTION

FIG. 30

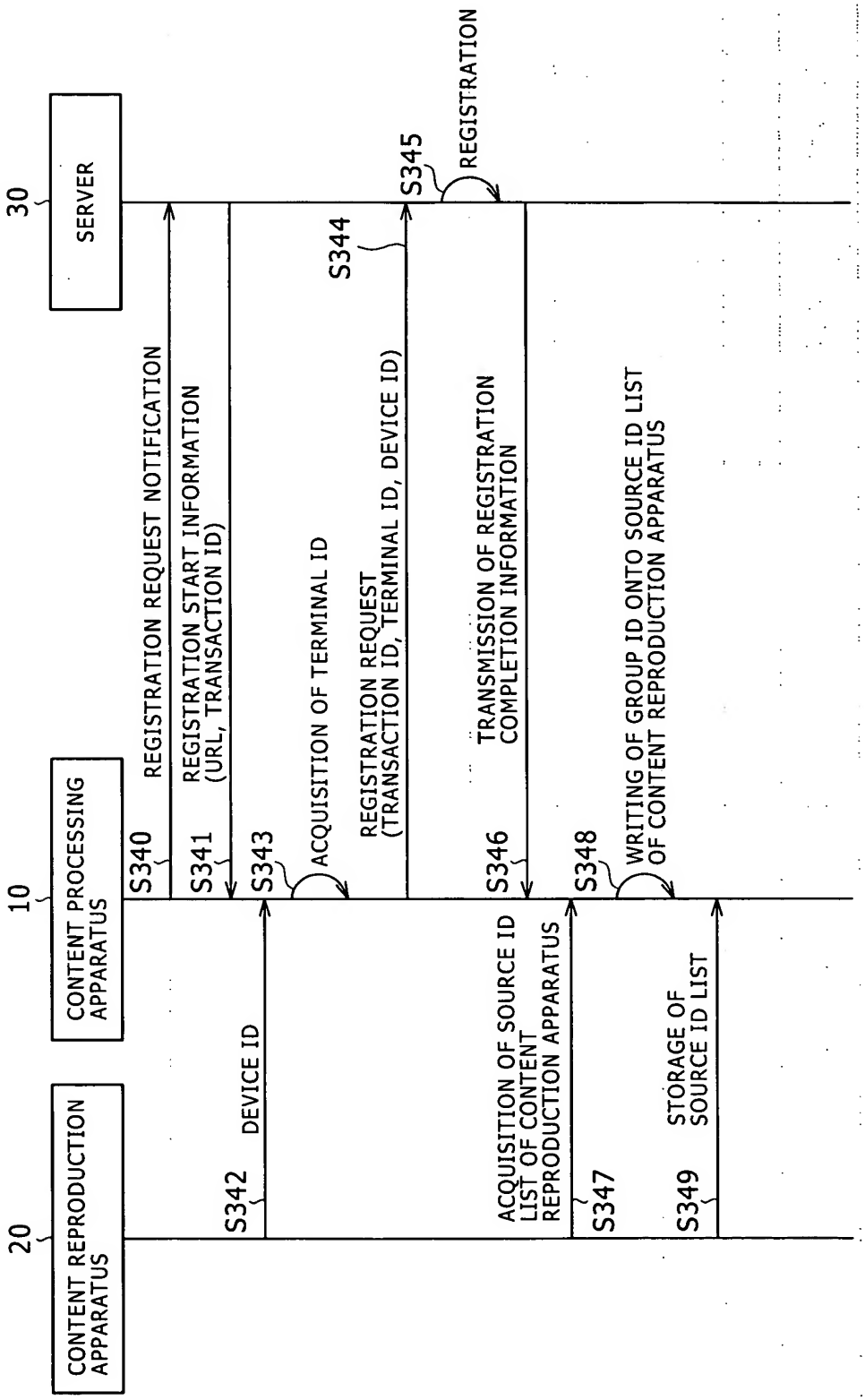
30
SERVER
10
CONTENT PROCESSING APPARATUS
20
CONTENT REPRODUCTION APPARATUS
S340
REGISTRATION REQUEST NOTIFICATION
S341
REGISTRATION START INFORMATION (URL, TRANSACTION ID)
S342
DEVICE ID
S343
ACQUISITION OF TERMINAL ID
S344
REGISTRATION REQUEST (TRANSACTION ID, TERMINAL ID, DEVICE ID)
S345
REGISTRATION
S346
TRANSMISSION OF REGISTRATION COMPLETION INFORMATION
S347
ACQUISITION OF SOURCE ID LIST OF CONTENT REPRODUCTION APPARATUS
S348
WRITING OF GROUP ID ONTO SOURCE ID LIST OF CONTENT REPRODUCTION APPARATUS
S349
STORAGE OF SOURCE ID LIST

FIG. 31

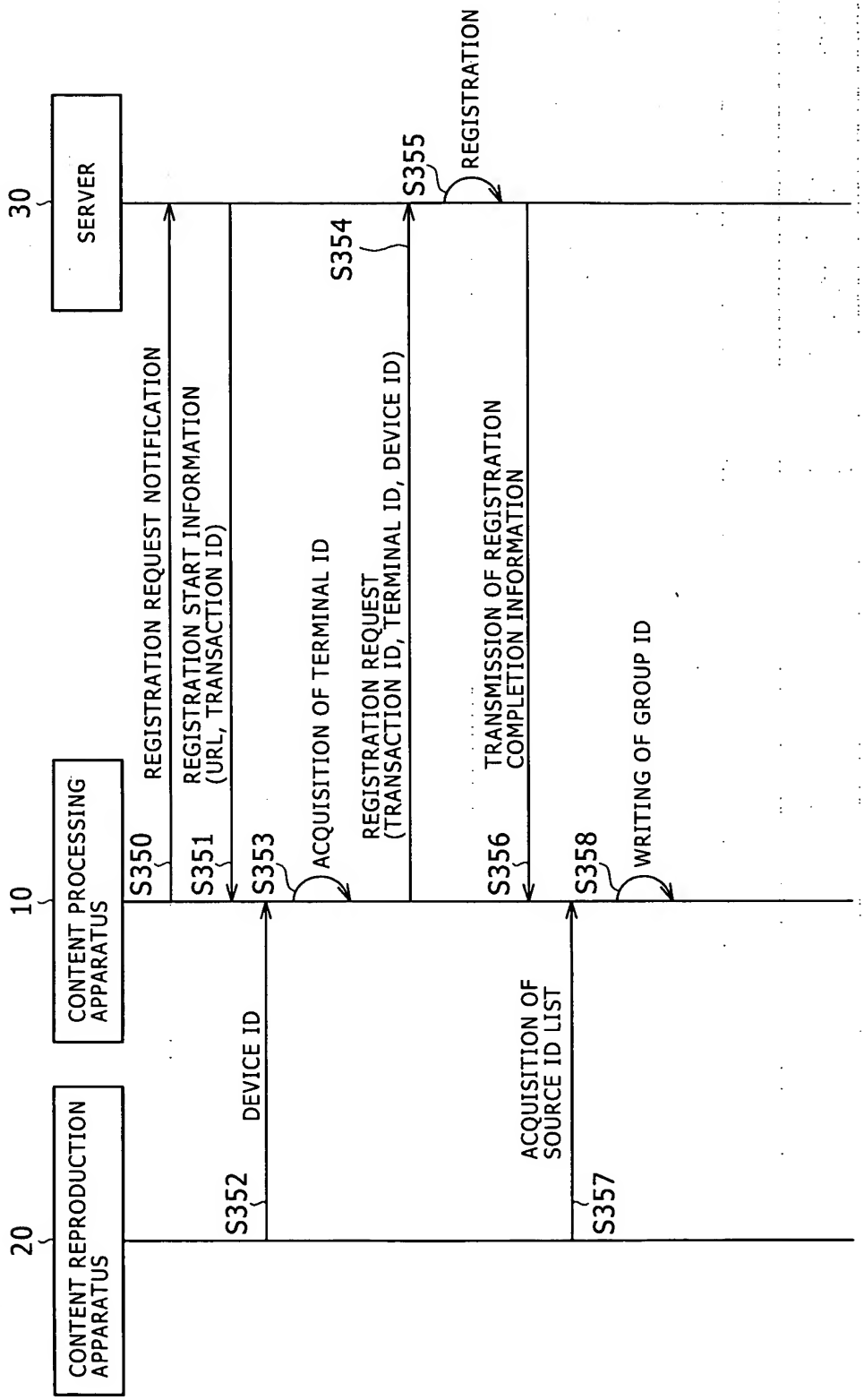
30
SERVER
10
CONTENT PROCESSING APPARATUS
20
CONTENT REPRODUCTION APPARATUS
S350
REGISTRATION REQUEST NOTIFICATION
S351
REGISTRATION START INFORMATION (URL, TRANSACTION ID)
S352
DEVICE ID
S353
ACQUISITION OF TERMINAL ID
S354
REGISTRATION REQUEST (TRANSACTION ID, TERMINAL ID, DEVICE ID)
S355
REGISTRATION
S356
TRANSMISSION OF REGISTRATION COMPLETION INFORMATION
S357
ACQUISITION OF SOURCE ID LIST
S358
WRITING OF GROUP ID

FIG. 32

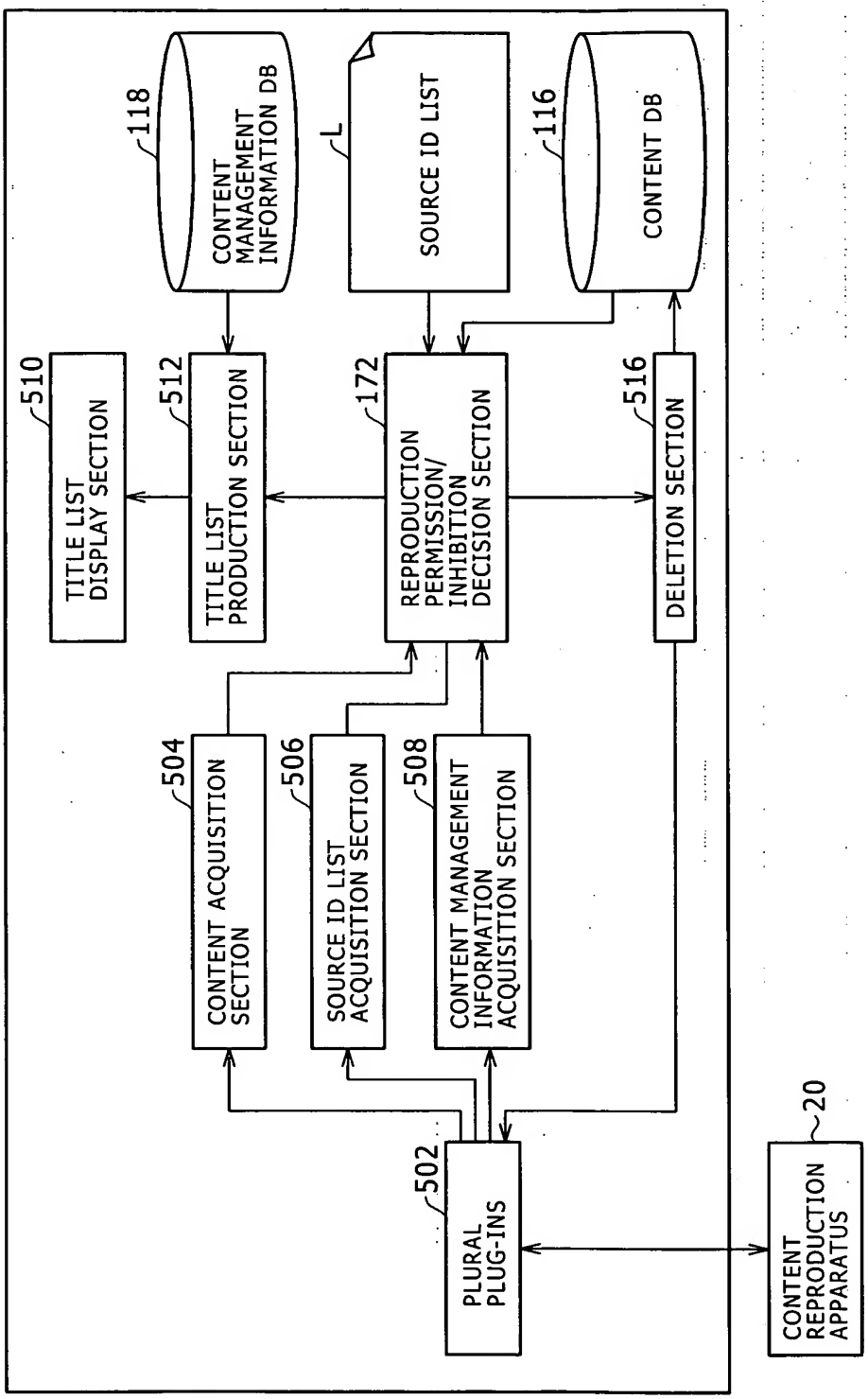
10
118
CONTENT MANAGEMENT INFORMATION DB
L
SOURCE ID LIST
116
CONTENT DB
510
TITLE LIST DISPLAY SECTION
512
TITLE LIST PRODUCTION SECTION
172
REPRODUCTION PERMISSION/ INHIBITION DECISION SECTION
516
DELETION SECTION
504
CONTENT ACQUISITION SECTION
506
SOURCE ID LIST ACQUISITION SECTION
508
CONTENT MANAGEMENT INFORMATION ACQUISITION SECTION
502
PLURAL PLUG-INS
20
CONTENT REPRODUCTION APPARATUS

FIG. 33

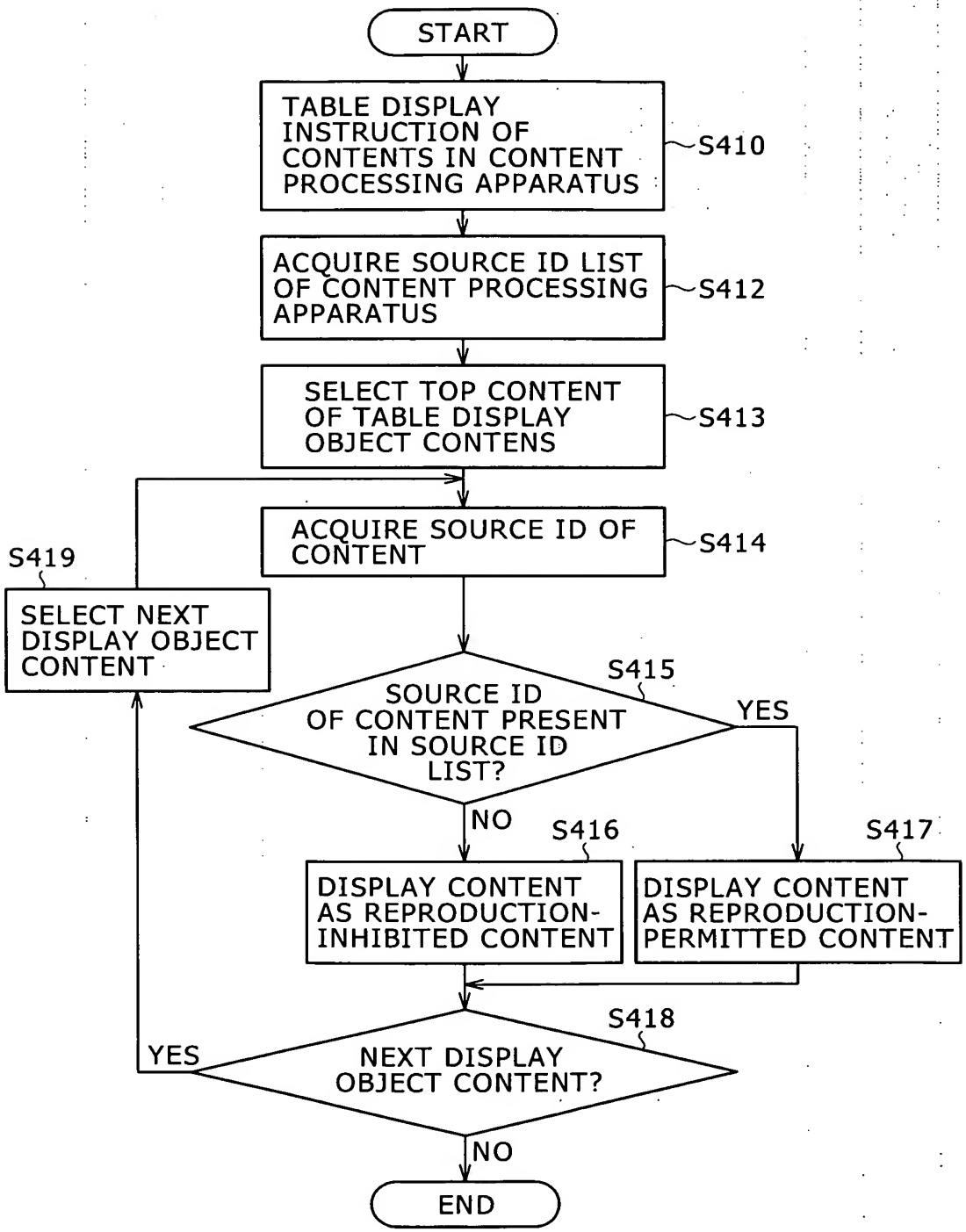
START
TABLE DISPLAY INSTRUCTION OF CONTENTS IN CONTENT PROCESSING APPARATUS
S410
ACQUIRE SOURCE ID LIST OF CONTENT PROCESSING APPARATUS
S412
SELECT TOP CONTENT OF TABLE DISPLAY OBJECT CONTENS
S413
ACQUIRE SOURCE ID OF CONTENT
S414
S419
SELECT NEXT DISPLAY OBJECT CONTENT
S415
SOURCE ID OF CONTENT PRESENT IN SOURCE ID LIST?
YES
NO
S416
DISPLAY CONTENT AS REPRODUCTION-INHIBITED CONTENT
S417
DISPLAY CONTENT AS REPRODUCTION-PERMITTED CONTENT
S418
NEXT DISPLAY OBJECT CONTENT?
YES
NO
END

FIG. 34

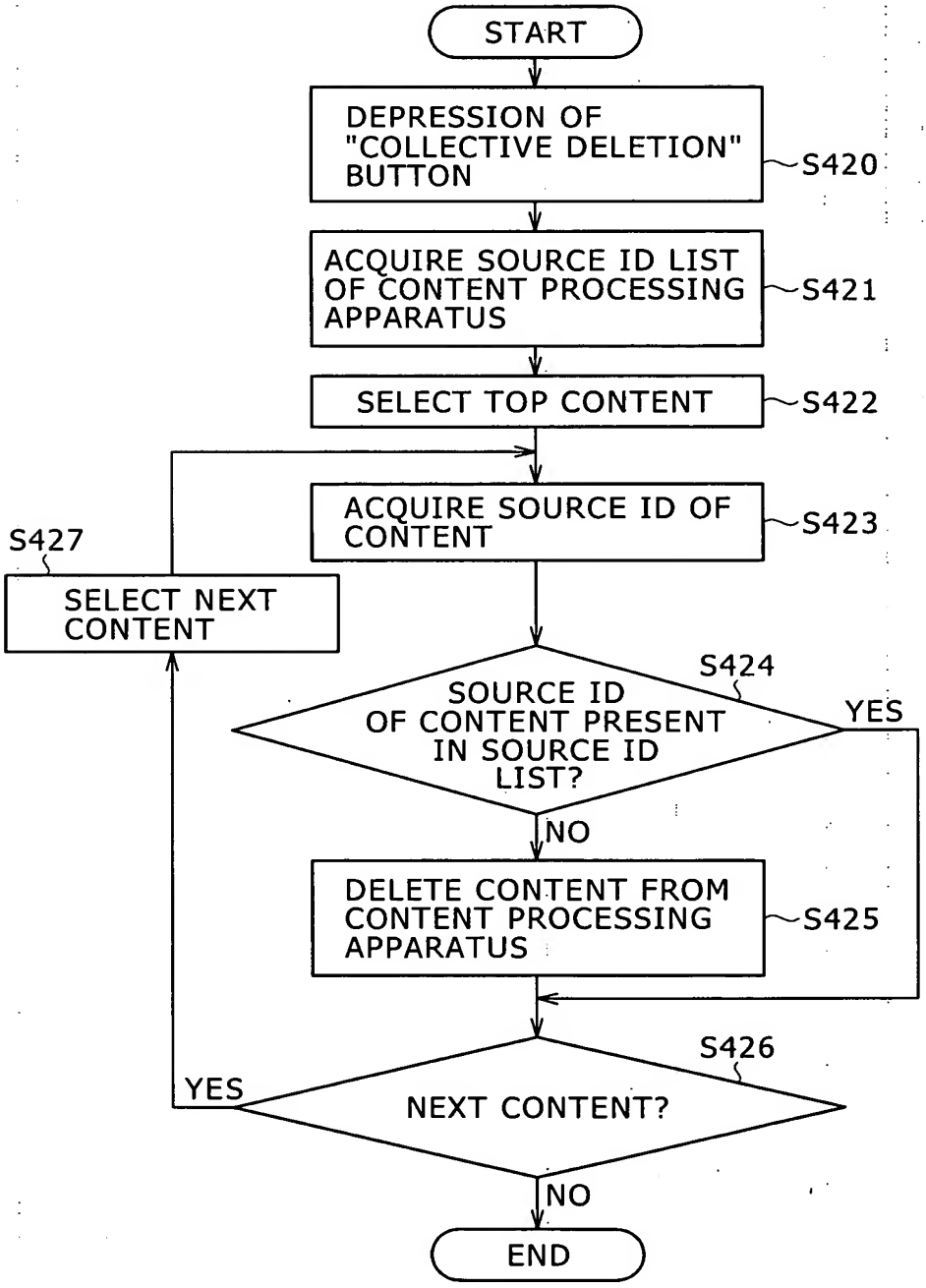
START
DEPRESSION OF "COLLECTIVE DELETION" BUTTON
S420
ACQUIRE SOURCE ID LIST OF CONTENT PROCESSING APPARATUS
S421
SELECT TOP CONTENT
S422
ACQUIRE SOURCE ID OF CONTENT
S423
S424
SOURCE ID OF CONTENT PRESENT IN SOURCE ID LIST?
YES
NO
DELETE CONTENT FROM CONTENT PROCESSING APPARATUS
S425
S426
NEXT CONTENT?
YES
NO
S427
SELECT NEXT CONTENT
END

FIG. 35

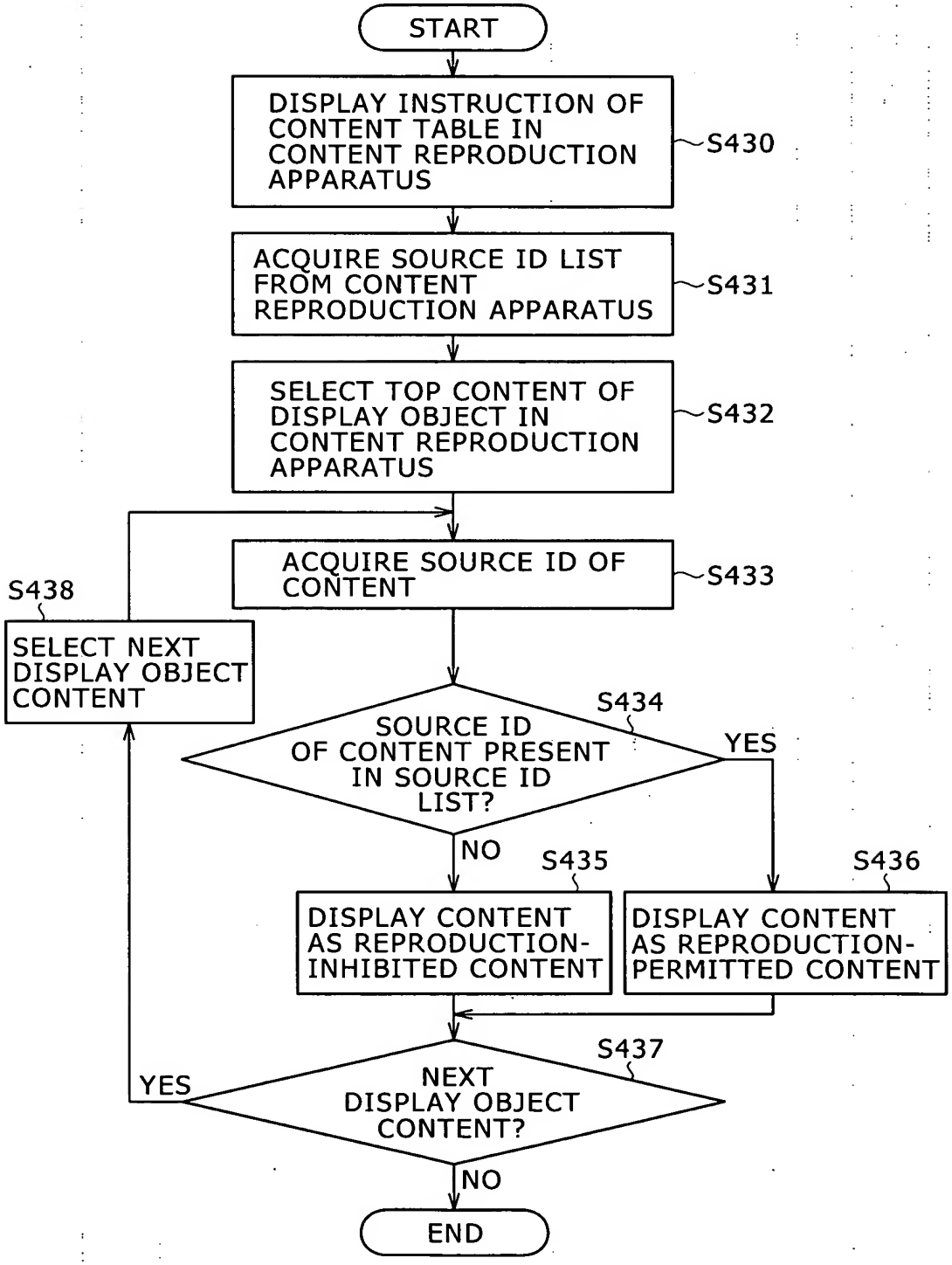
START
DISPLAY INSTRUCTION OF CONTENT TABLE IN CONTENT REPRODUCTION APPARATUS
S430
ACQUIRE SOURCE ID LIST FROM CONTENT REPRODUCTION APPARATUS
S431
SELECT TOP CONTENT OF DISPLAY OBJECT IN CONTENT REPRODUCTION APPARATUS
S432
ACQUIRE SOURCE ID OF CONTENT
S433
S438
SELECT NEXT DISPLAY OBJECT CONTENT
S434
SOURCE ID OF CONTENT PRESENT IN SOURCE ID LIST?
YES
NO
S435
DISPLAY CONTENT AS REPRODUCTION-INHIBITED CONTENT
S436
DISPLAY CONTENT AS REPRODUCTION-PERMITTED CONTENT
S437
NEXT DISPLAY OBJECT CONTENT?
YES
NO
END

FIG. 36

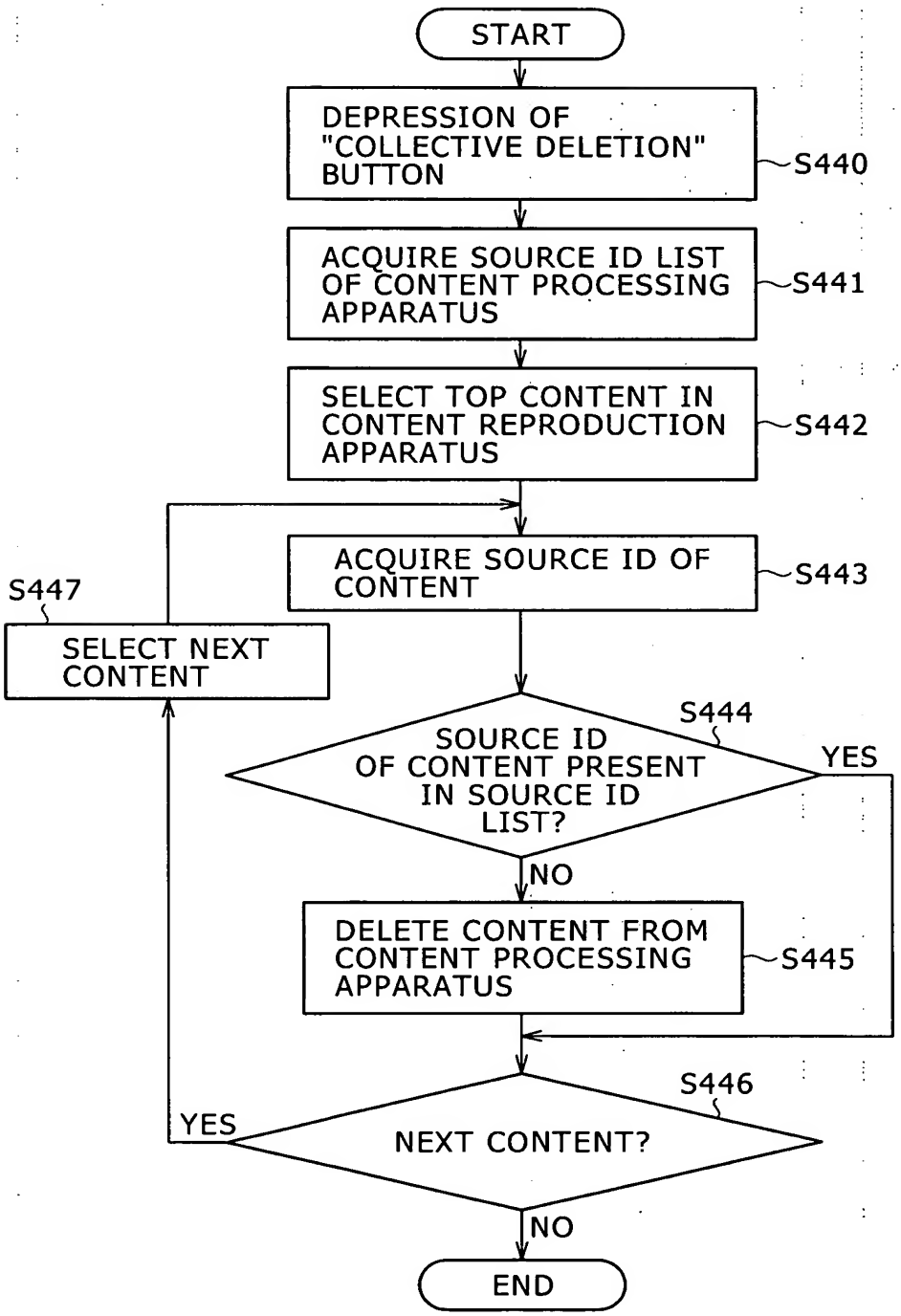
START
DEPRESSION OF "COLLECTIVE DELETION" BUTTON
S440
ACQUIRE SOURCE ID LIST OF CONTENT PROCESSING APPARATUS
S441
SELECT TOP CONTENT IN CONTENT REPRODUCTION APPARATUS
S442
ACQUIRE SOURCE ID OF CONTENT
S443
S447
SELECT NEXT CONTENT
S444
SOURCE ID OF CONTENT PRESENT IN SOURCE ID LIST?
YES
NO
DELETE CONTENT FROM CONTENT PROCESSING APPARATUS
S445
S446
YES
NEXT CONTENT?
NO
END

FIG. 37

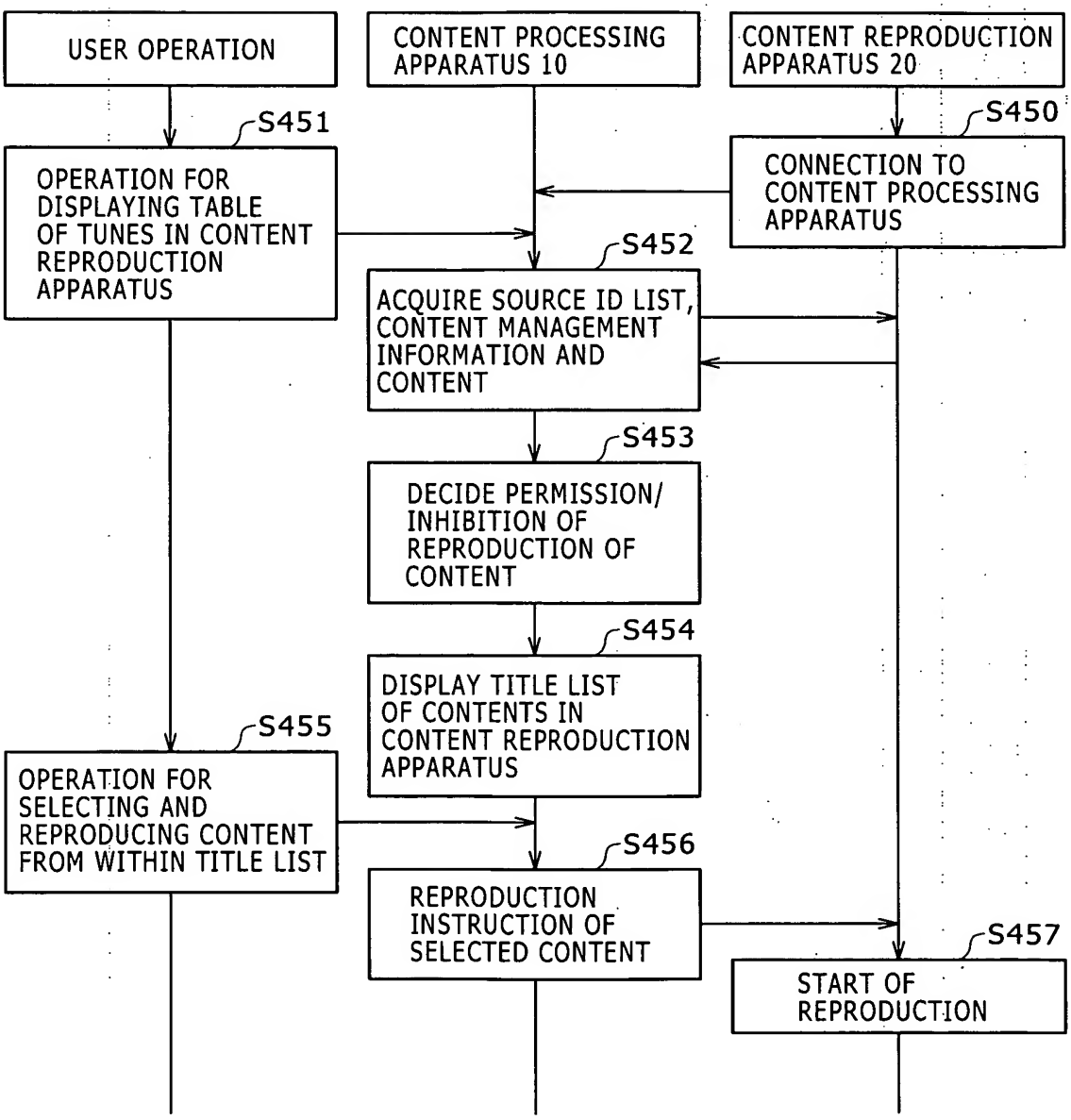
USER OPERATION
CONTENT PROCESSING APPARATUS 10
CONTENT REPRODUCTION APPARATUS 20
S450
CONNECTION TO CONTENT PROCESSING APPARATUS
S451
OPERATION FOR DISPLAYING TABLE OF TUNES IN CONTENT REPRODUCTION APPARATUS
S452
ACQUIRE SOURCE ID LIST, CONTENT MANAGEMENT INFORMATION AND CONTENT
S453
DECIDE PERMISSION/ INHIBITION OF REPRODUCTION OF CONTENT
S454
DISPLAY TITLE LIST OF CONTENTS IN CONTENT REPRODUCTION APPARATUS
S455
OPERATION FOR SELECTING AND REPRODUCING CONTENT FROM WITHIN TITLE LIST
S456
REPRODUCTION INSTRUCTION OF SELECTED CONTENT
S457
START OF REPRODUCTION

FIG. 38

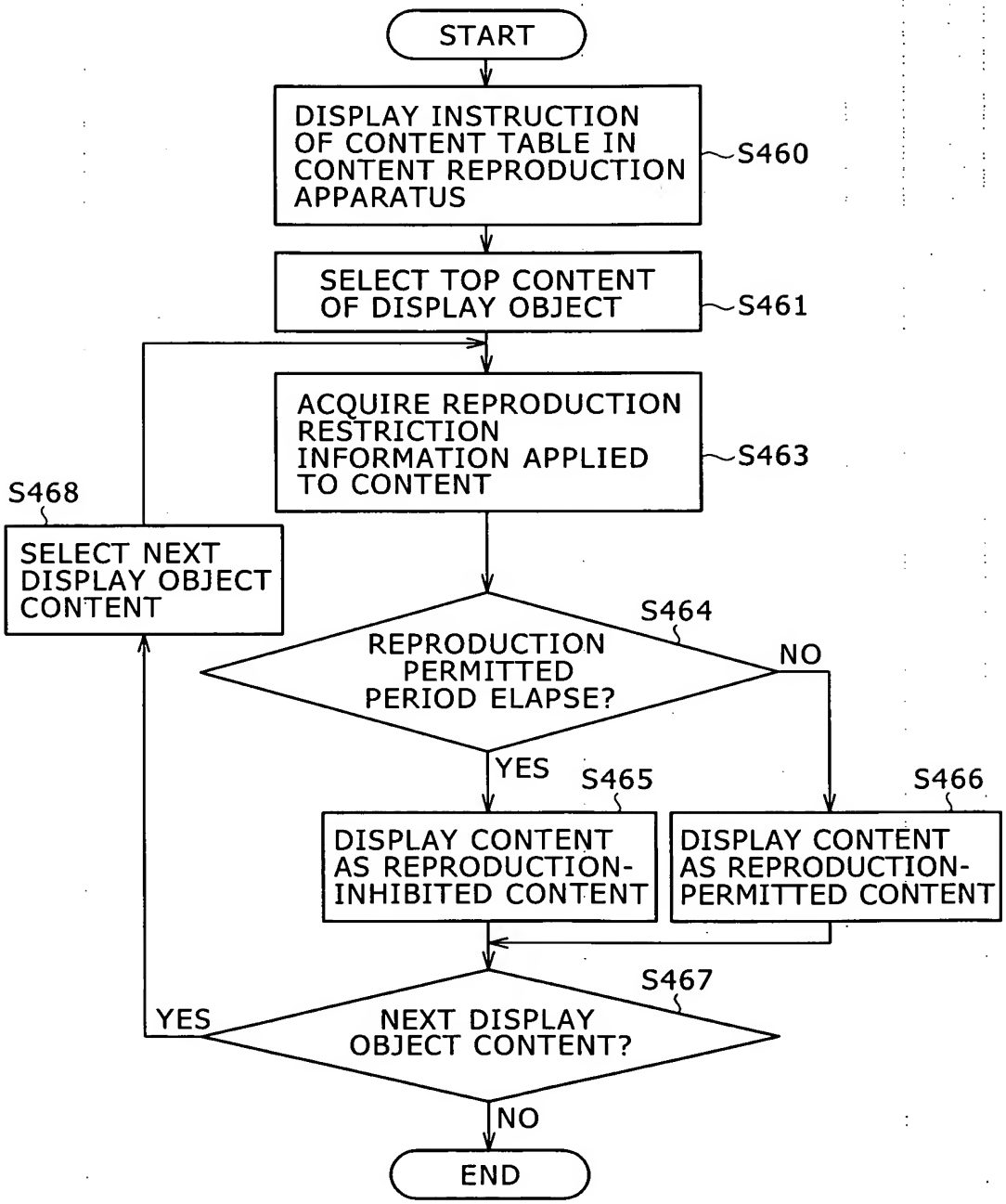
START
DISPLAY INSTRUCTION OF CONTENT TABLE IN CONTENT REPRODUCTION APPARATUS
S460
SELECT TOP CONTENT OF DISPLAY OBJECT
S461
ACQUIRE REPRODUCTION RESTRICTION INFORMATION APPLIED TO CONTENT
S463
S468
SELECT NEXT DISPLAY OBJECT CONTENT
S464
REPRODUCTION PERMITTED PERIOD ELAPSE?
NO
YES
S465
S466
DISPLAY CONTENT AS REPRODUCTION-INHIBITED CONTENT
DISPLAY CONTENT AS REPRODUCTION-PERMITTED CONTENT
S467
YES
NEXT DISPLAY OBJECT CONTENT?
NO
END

FIG. 39

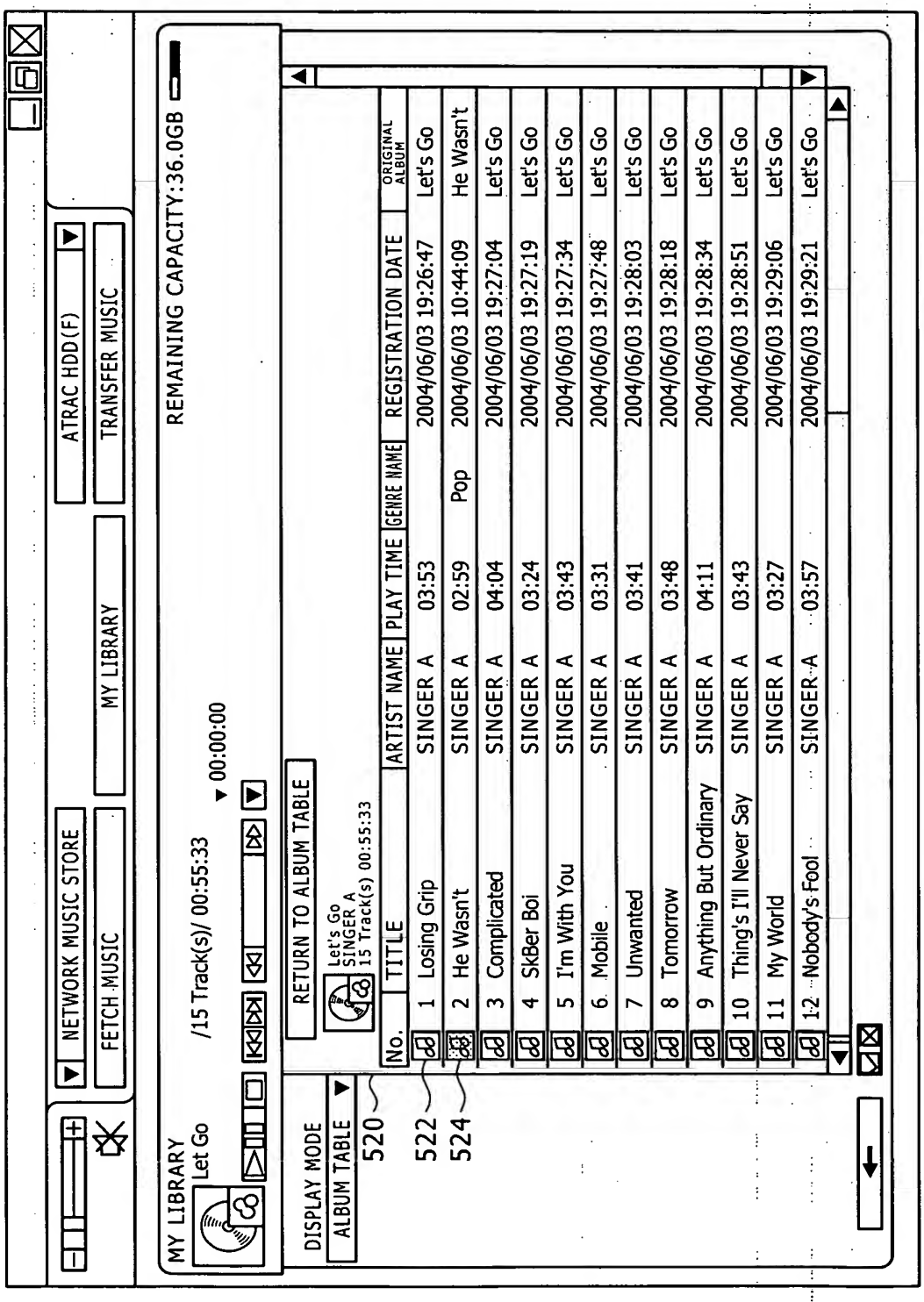
NETWORK MUSIC STORE
FETCH MUSIC
MY LIBRARY
ATRAC HDD(F)
TRANSFER MUSIC
REMAINING CAPACITY:36.0GB
MY LIBRARY
Let Go
/15 Track(s)/ 00:55:33
00:00:00
DISPLAY MODE
ALBUM TABLE
RETURN TO ALBUM TABLE
Let's Go
SINGER A
15 Track(s) 00:55:33
No.
TITLE
ARTIST NAME
PLAY TIME
GENRE NAME
REGISTRATION DATE
ORIGINAL ALBUM
1 Losing Grip SINGER A 03:53 2004/06/03 19:26:47 Let's Go
2 He Wasn't SINGER A 02:59 Pop 2004/06/03 10:44:09 He Wasn't
3 Complicated SINGER A 04:04 2004/06/03 19:27:04 Let's Go
4 SkBer Boi SINGER A 03:24 2004/06/03 19:27:19 Let's Go
5 I'm With You SINGER A 03:43 2004/06/03 19:27:34 Let's Go
6 Mobile SINGER A 03:31 2004/06/03 19:27:48 Let's Go
7 Unwanted SINGER A 03:41 2004/06/03 19:28:03 Let's Go
8 Tomorrow SINGER A 03:48 2004/06/03 19:28:18 Let's Go
9 Anything But Ordinary SINGER A 04:11 2004/06/03 19:28:34 Let's Go
10 Thing's I'll Never Say SINGER A 03:43 2004/06/03 19:28:51 Let's Go
11 My World SINGER A 03:27 2004/06/03 19:29:06 Let's Go
12 Nobody's Fool SINGER A 03:57 2004/06/03 19:29:21 Let's Go
520
522
524

FIG. 40

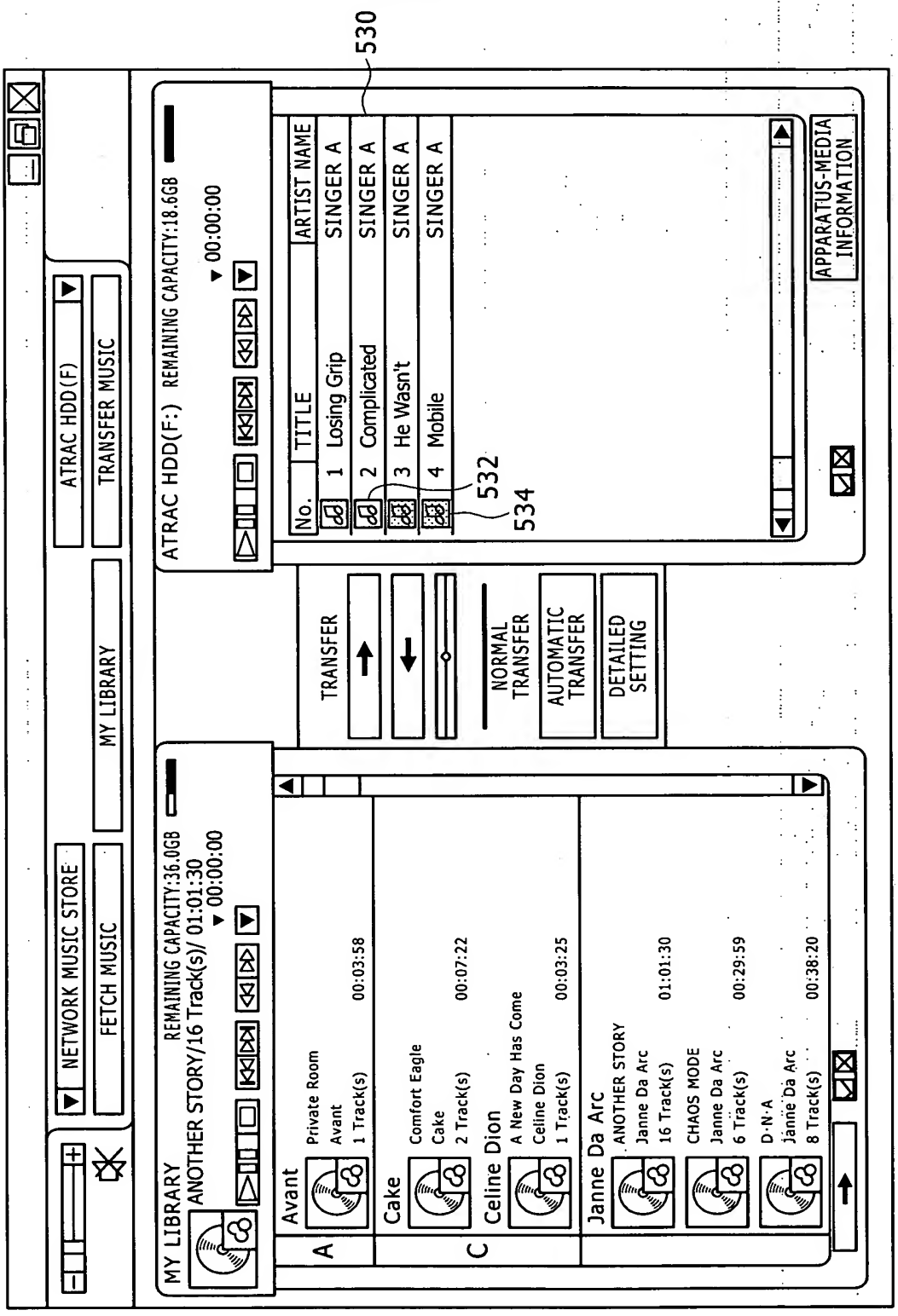
NETWORK MUSIC STORE
FETCH MUSIC
MY LIBRARY
ATRAC HDD(F)
TRANSFER MUSIC
MY LIBRARY
ANOTHER STORY/16 Track(s)/ 01:01:30
REMAINING CAPACITY:36.0GB
00:00:00
ATRAC HDD(F:) REMAINING CAPACITY:18.6GB
00:00:00
530
No.
TITLE
ARTIST NAME
1 Losing Grip SINGER A
2 Complicated SINGER A
3 He Wasn't SINGER A
4 Mobile SINGER A
532
534
TRANSFER
NORMAL TRANSFER
AUTOMATIC TRANSFER
DETAILED SETTING
APPARATUS-MEDIA INFORMATION
A
Avant
Private Room
Avant
1 Track(s) 00:03:58
C
Cake
Comfort Eagle
Cake
2 Track(s) 00:07:22
Celine Dion
A New Day Has Come
Celine Dion
1 Track(s) 00:03:25
Janne Da Arc
ANOTHER STORY
Janne Da Arc
16 Track(s) 01:01:30
CHAOS MODE
Janne Da Arc
6 Track(s) 00:29:59
D·N·A
Janne Da Arc
8 Track(s) 00:38:20

FIG. 41

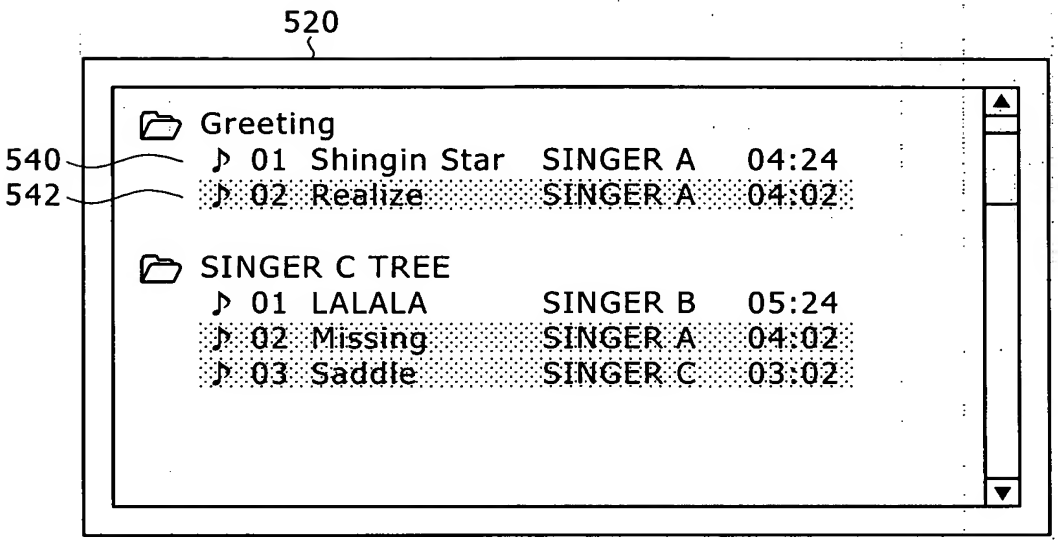
520
Greeting
♪ 01 Shingin Star SINGER A 04:24
540
542
♪ 02 Realize SINGER A 04:02
SINGER C TREE
♪ 01 LALALA SINGER B 05:24
♪ 02 Missing SINGER A 04:02
♪ 03 Saddle SINGER C 03:02

FIG. 42

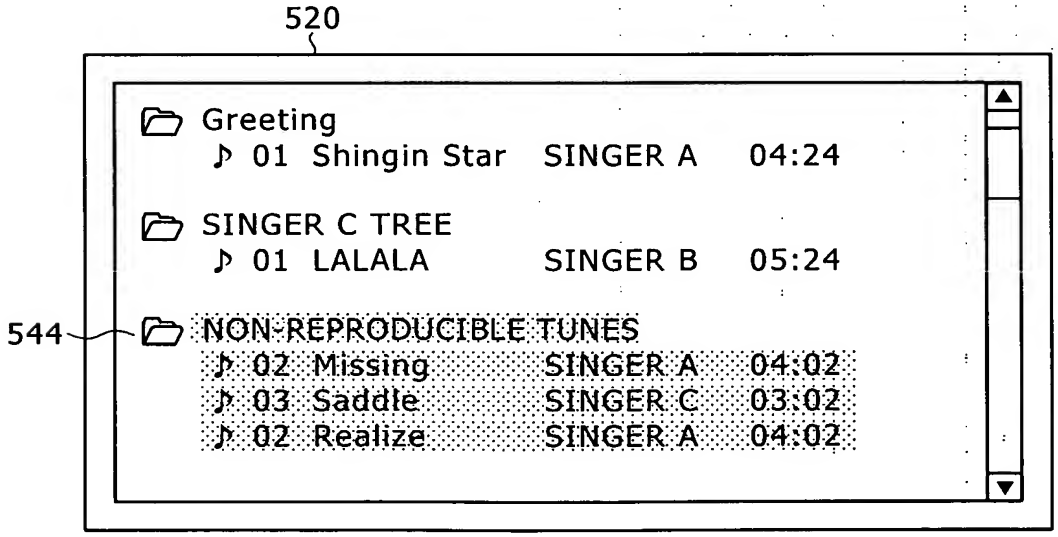
520
Greeting
♪ 01 Shingin Star SINGER A 04:24
SINGER C TREE
♪ 01 LALALA SINGER B 05:24
544
NON-REPRODUCIBLE TUNES
♪ 02 Missing SINGER A 04:02
♪ 03 Saddle SINGER C 03:02
♪ 02 Realize SINGER A 04:02

FIG. 43

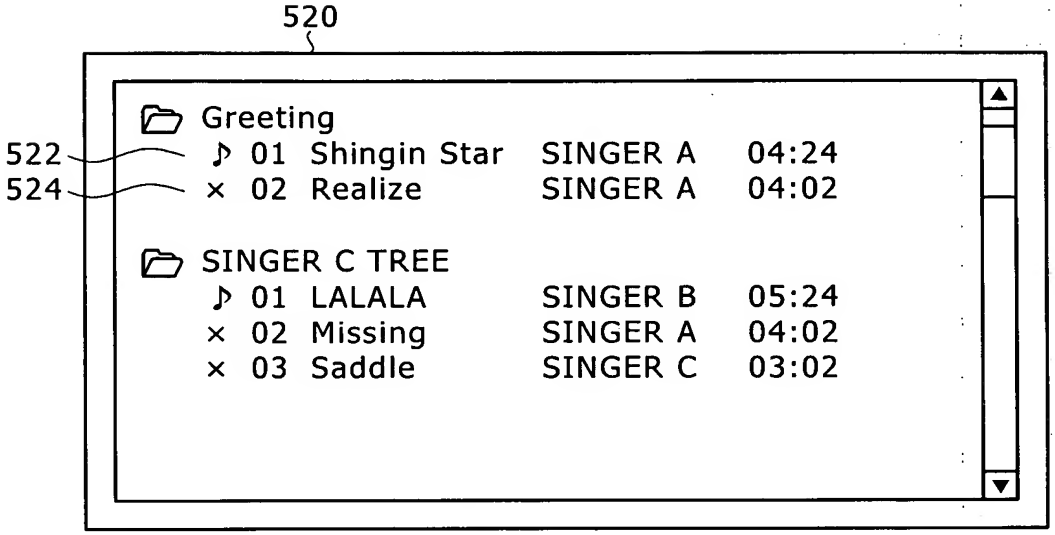
520
522
524
Greeting
♪ 01 Shingin Star SINGER A 04:24
× 02 Realize SINGER A 04:02
SINGER C TREE
♪ 01 LALALA SINGER B 05:24
× 02 Missing SINGER A 04:02
× 03 Saddle SINGER C 03:02

FIG. 44

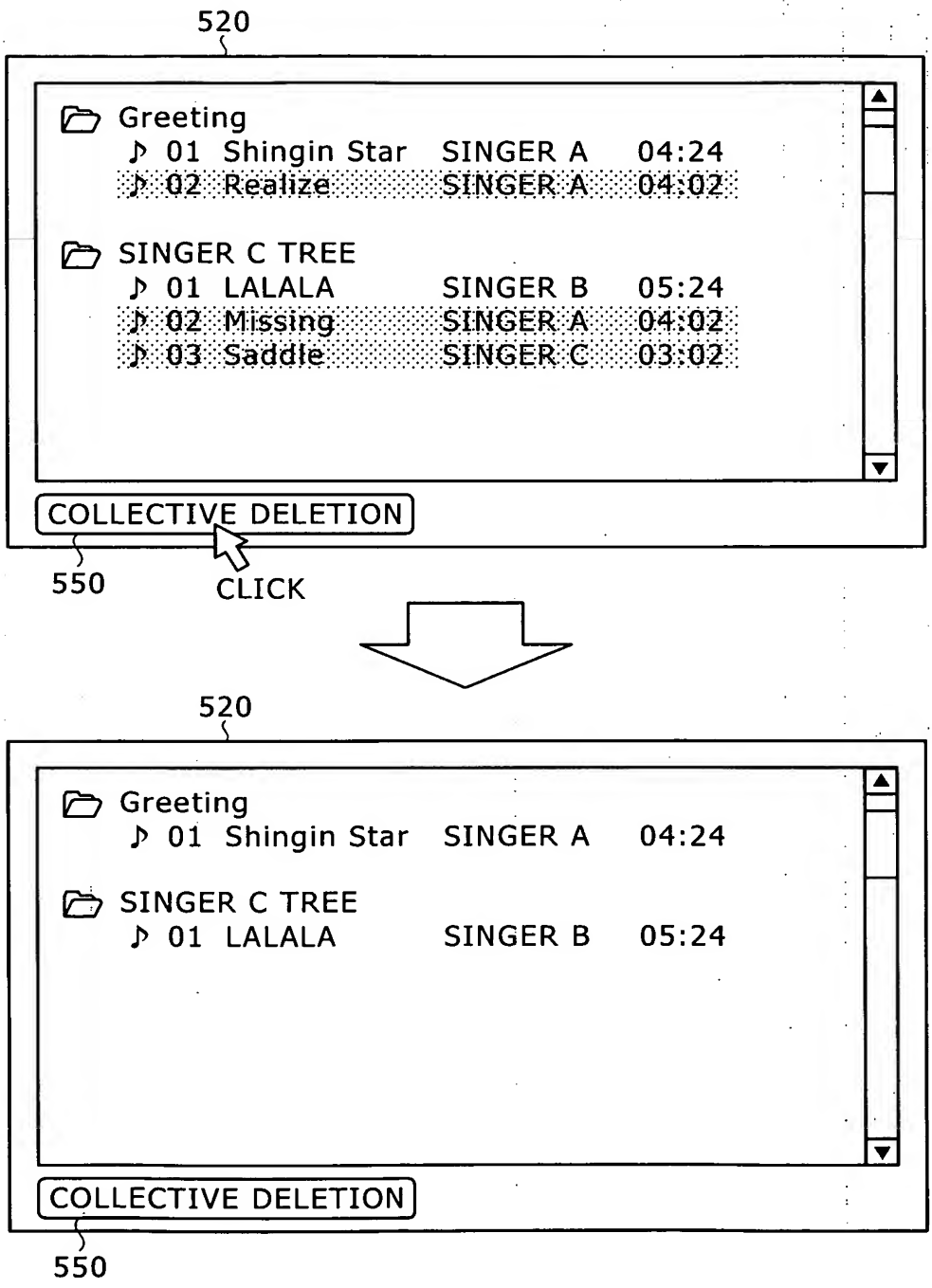
520
Greeting
♪ 01 Shingin Star SINGER A 04:24
♪ 02 Realize SINGER A 04:02
SINGER C TREE
♪ 01 LALALA SINGER B 05:24
♪ 02 Missing SINGER A 04:02
♪ 03 Saddle SINGER C 03:02
COLLECTIVE DELETION
550
CLICK
520
Greeting
♪ 01 Shingin Star SINGER A 04:24
SINGER C TREE
♪ 01 LALALA SINGER B 05:24
COLLECTIVE DELETION
550

FIG. 45

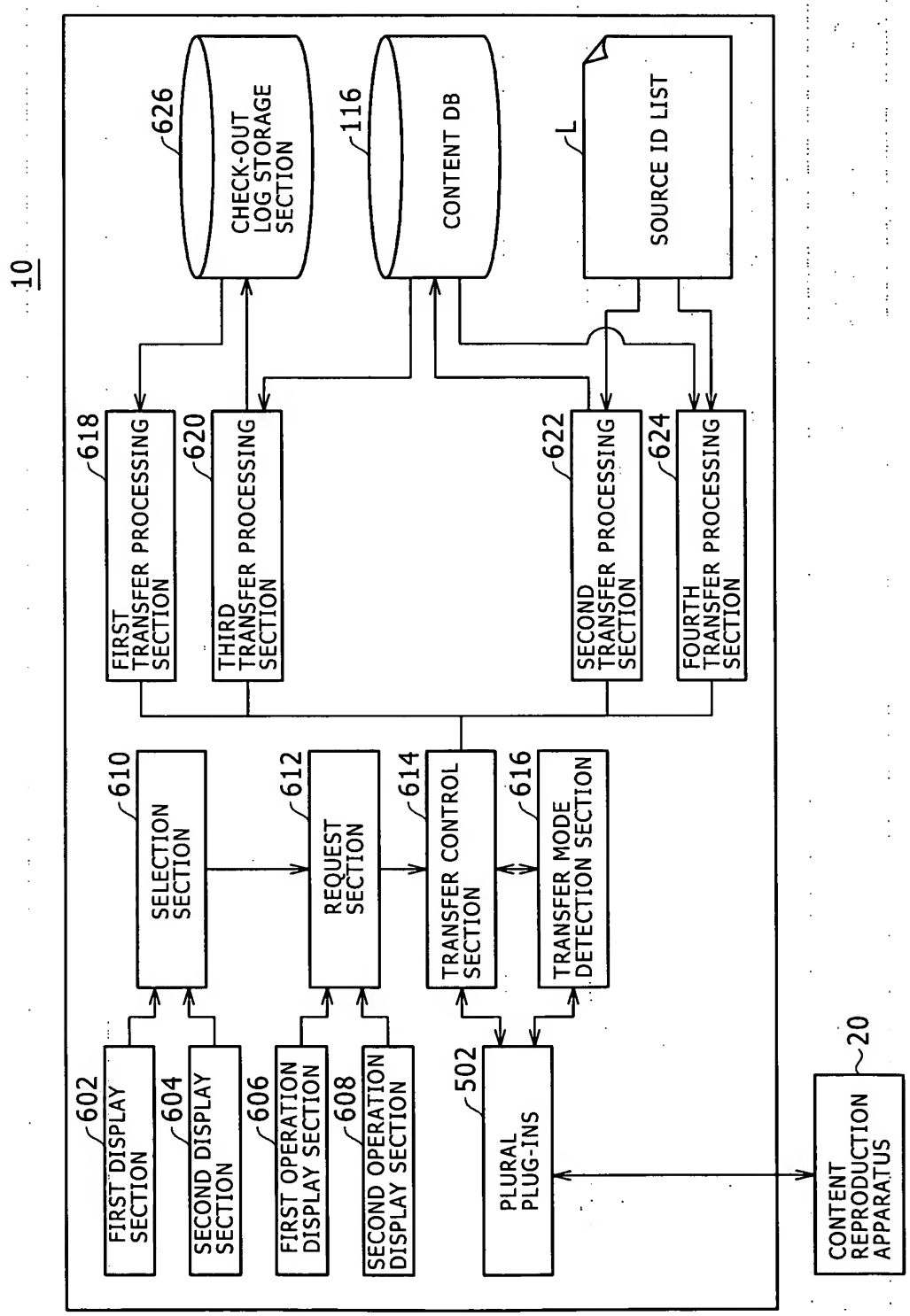
10
626
CHECK-OUT LOG STORAGE SECTION
116
CONTENT DB
L
SOURCE ID LIST
618
FIRST TRANSFER PROCESSING SECTION
620
THIRD TRANSFER PROCESSING SECTION
622
SECOND TRANSFER PROCESSING SECTION
624
FOURTH TRANSFER PROCESSING SECTION
610
SELECTION SECTION
612
REQUEST SECTION
614
TRANSFER CONTROL SECTION
616
TRANSFER MODE DETECTION SECTION
602
FIRST DISPLAY SECTION
604
SECOND DISPLAY SECTION
606
FIRST OPERATION DISPLAY SECTION
608
SECOND OPERATION DISPLAY SECTION
502
PLURAL PLUG-INS
20
CONTENT REPRODUCTION APPARATUS

FIG. 46

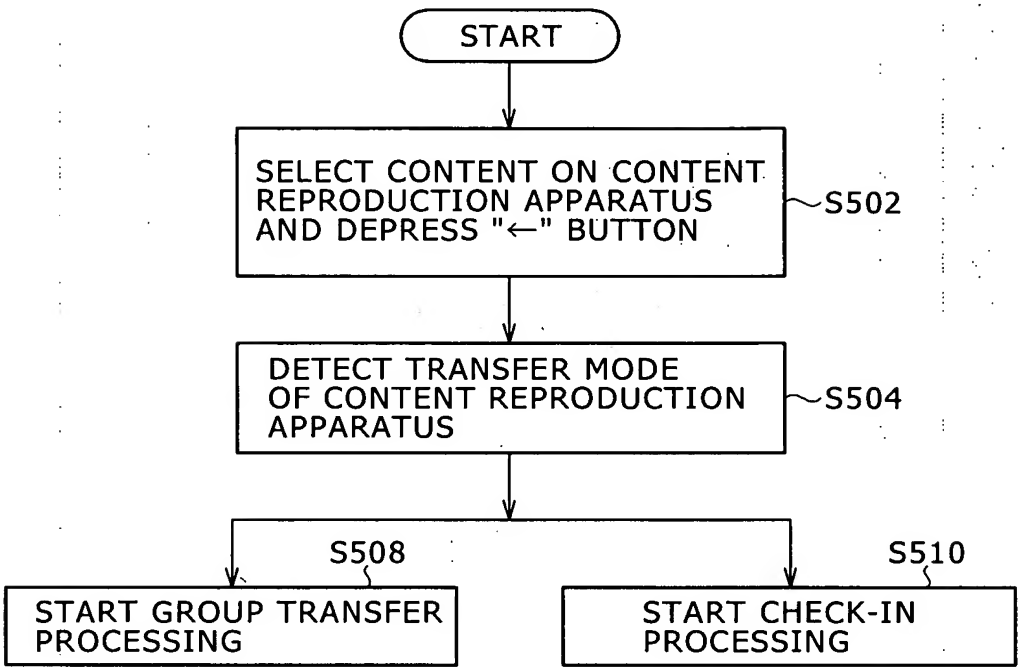
START
SELECT CONTENT ON CONTENT REPRODUCTION APPARATUS AND DEPRESS "←" BUTTON
S502
DETECT TRANSFER MODE OF CONTENT REPRODUCTION APPARATUS
S504
S508
S510
START GROUP TRANSFER PROCESSING
START CHECK-IN PROCESSING

FIG. 47

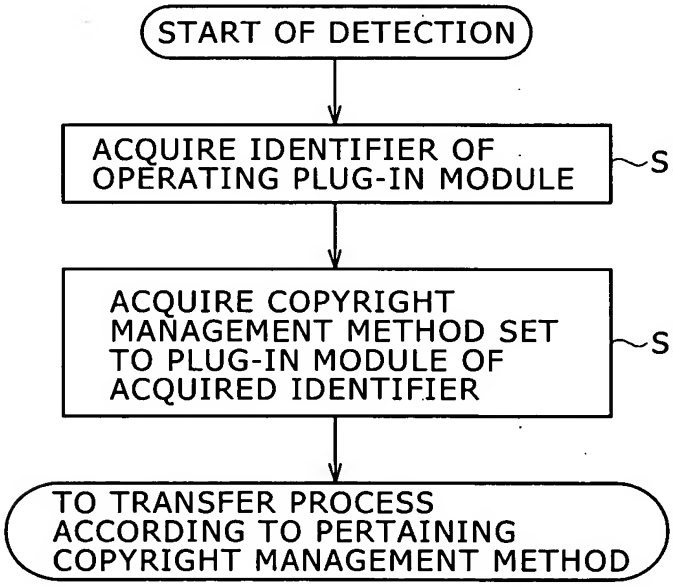
START OF DETECTION
ACQUIRE IDENTIFIER OF OPERATING PLUG-IN MODULE
S512
ACQUIRE COPYRIGHT MANAGEMENT METHOD SET TO PLUG-IN MODULE OF ACQUIRED IDENTIFIER
S514
TO TRANSFER PROCESS ACCORDING TO PERTAINING COPYRIGHT MANAGEMENT METHOD

FIG. 48

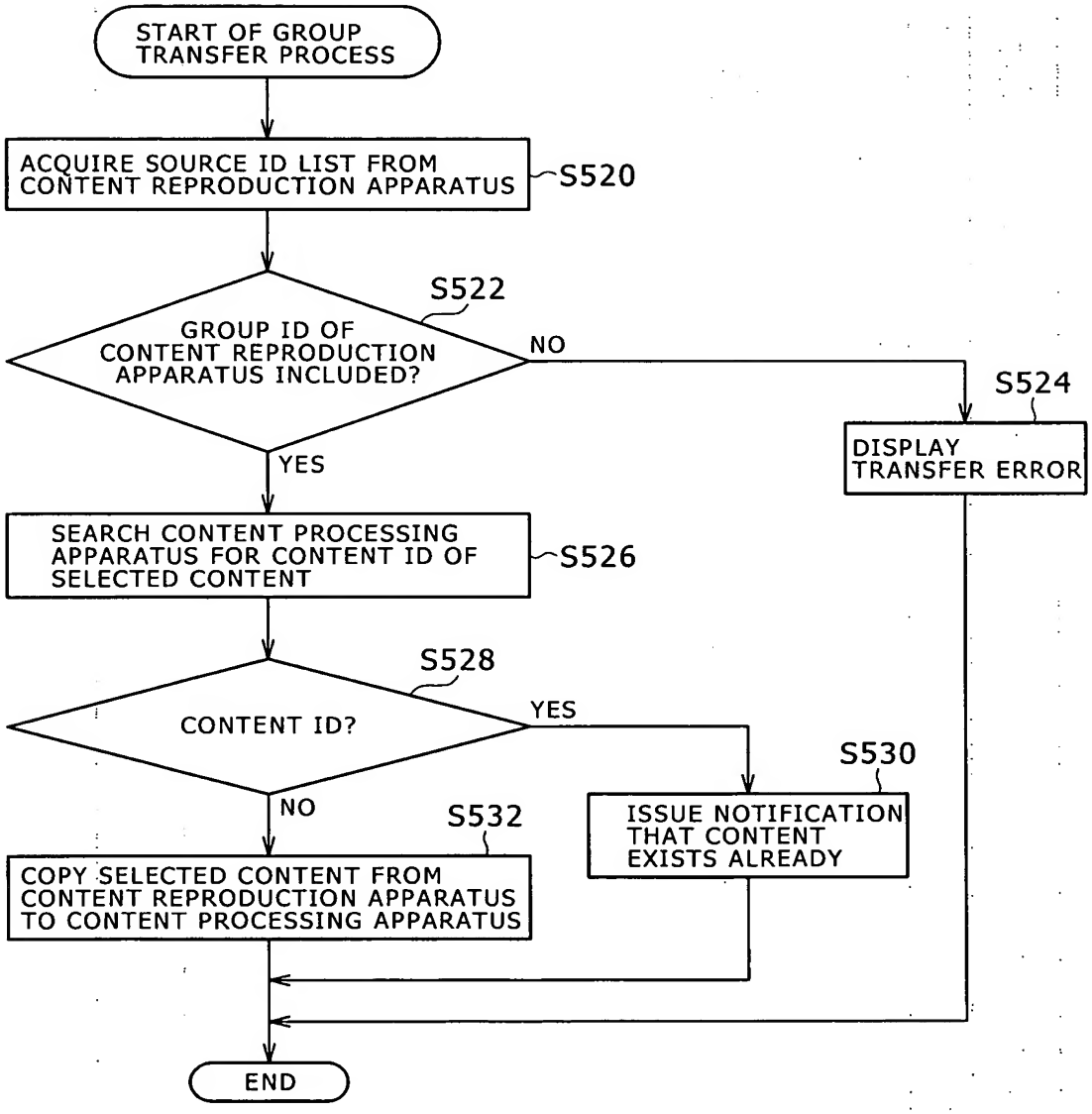
START OF GROUP TRANSFER PROCESS
ACQUIRE SOURCE ID LIST FROM CONTENT REPRODUCTION APPARATUS
S520
S522
GROUP ID OF CONTENT REPRODUCTION APPARATUS INCLUDED?
NO
YES
S524
DISPLAY TRANSFER ERROR
SEARCH CONTENT PROCESSING APPARATUS FOR CONTENT ID OF SELECTED CONTENT
S526
S528
CONTENT ID?
YES
NO
S530
ISSUE NOTIFICATION THAT CONTENT EXISTS ALREADY
S532
COPY SELECTED CONTENT FROM CONTENT REPRODUCTION APPARATUS TO CONTENT PROCESSING APPARATUS
END

FIG. 49

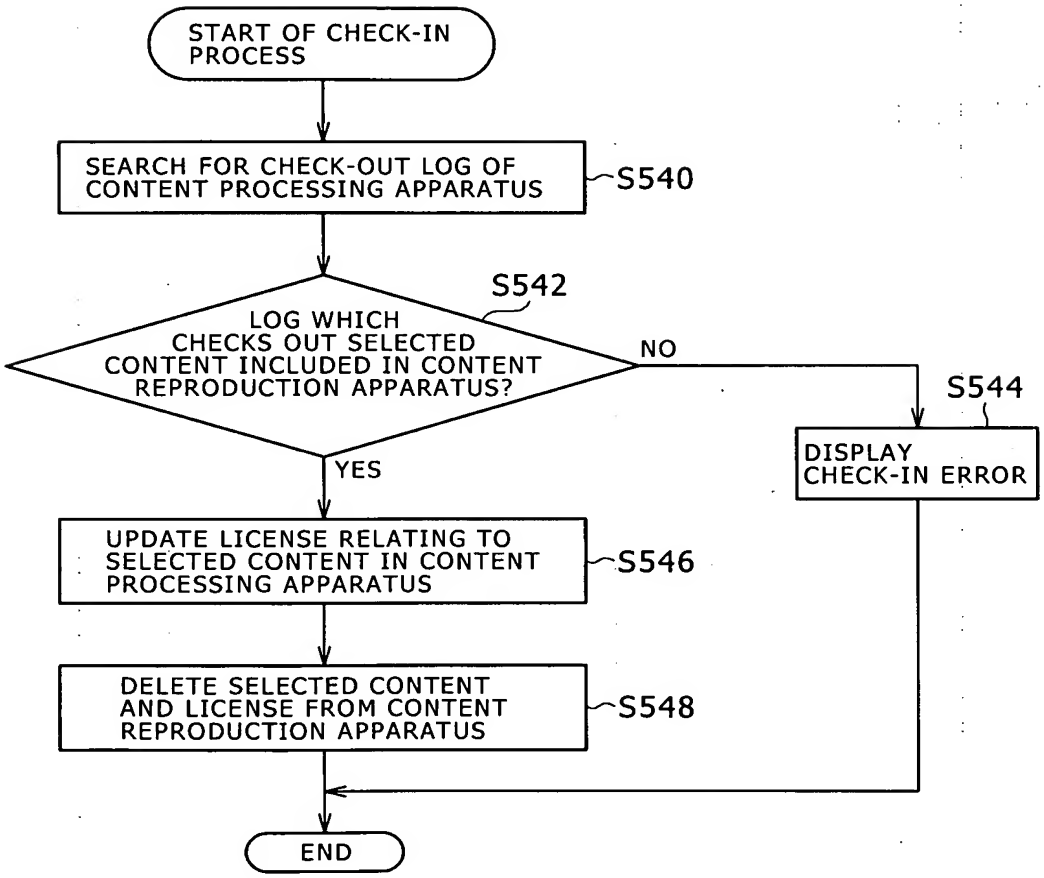
START OF CHECK-IN PROCESS
SEARCH FOR CHECK-OUT LOG OF CONTENT PROCESSING APPARATUS
S540
S542
LOG WHICH CHECKS OUT SELECTED CONTENT INCLUDED IN CONTENT REPRODUCTION APPARATUS?
NO
YES
S544
DISPLAY CHECK-IN ERROR
UPDATE LICENSE RELATING TO SELECTED CONTENT IN CONTENT PROCESSING APPARATUS
S546
DELETE SELECTED CONTENT AND LICENSE FROM CONTENT REPRODUCTION APPARATUS
S548
END

FIG. 50

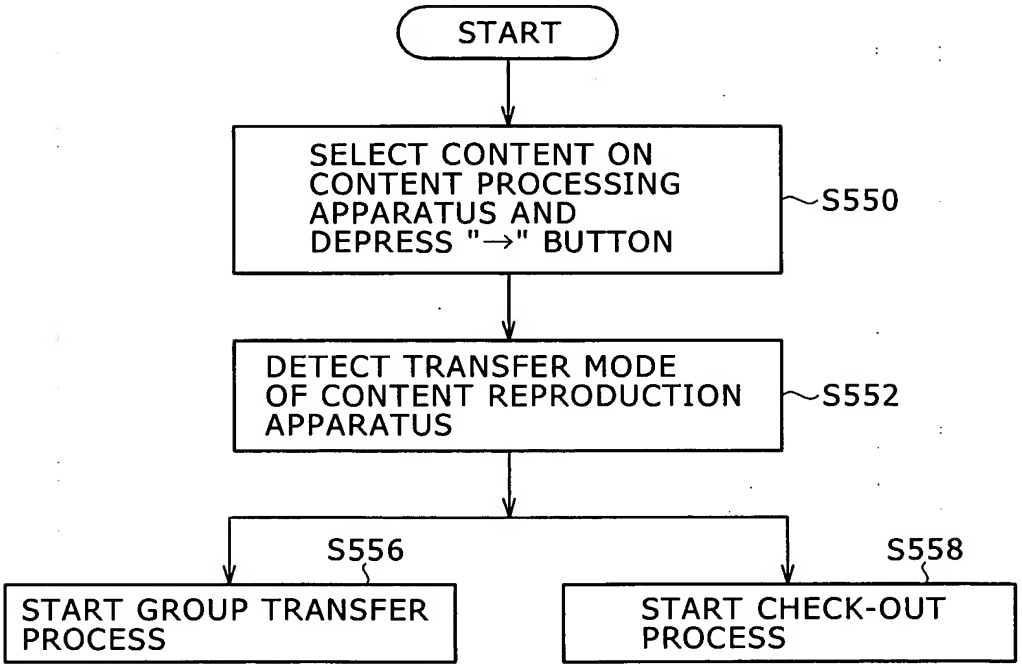
START
SELECT CONTENT ON CONTENT PROCESSING APPARATUS AND DEPRESS "→" BUTTON
S550
DETECT TRANSFER MODE OF CONTENT REPRODUCTION APPARATUS
S552
S556
S558
START GROUP TRANSFER PROCESS
START CHECK-OUT PROCESS

FIG. 51

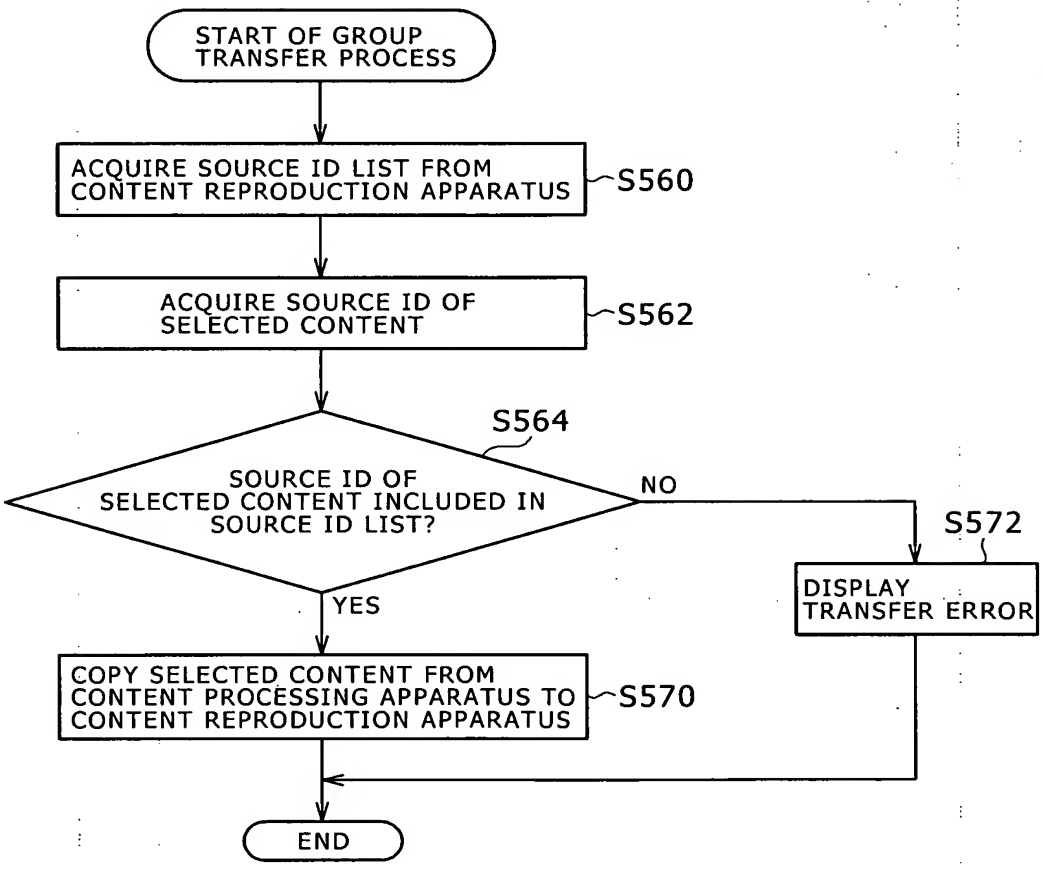
START OF GROUP TRANSFER PROCESS
ACQUIRE SOURCE ID LIST FROM CONTENT REPRODUCTION APPARATUS
S560
ACQUIRE SOURCE ID OF SELECTED CONTENT
S562
S564
SOURCE ID OF SELECTED CONTENT INCLUDED IN SOURCE ID LIST?
NO
S572
DISPLAY TRANSFER ERROR
YES
COPY SELECTED CONTENT FROM CONTENT PROCESSING APPARATUS TO CONTENT REPRODUCTION APPARATUS
S570
END

FIG. 52

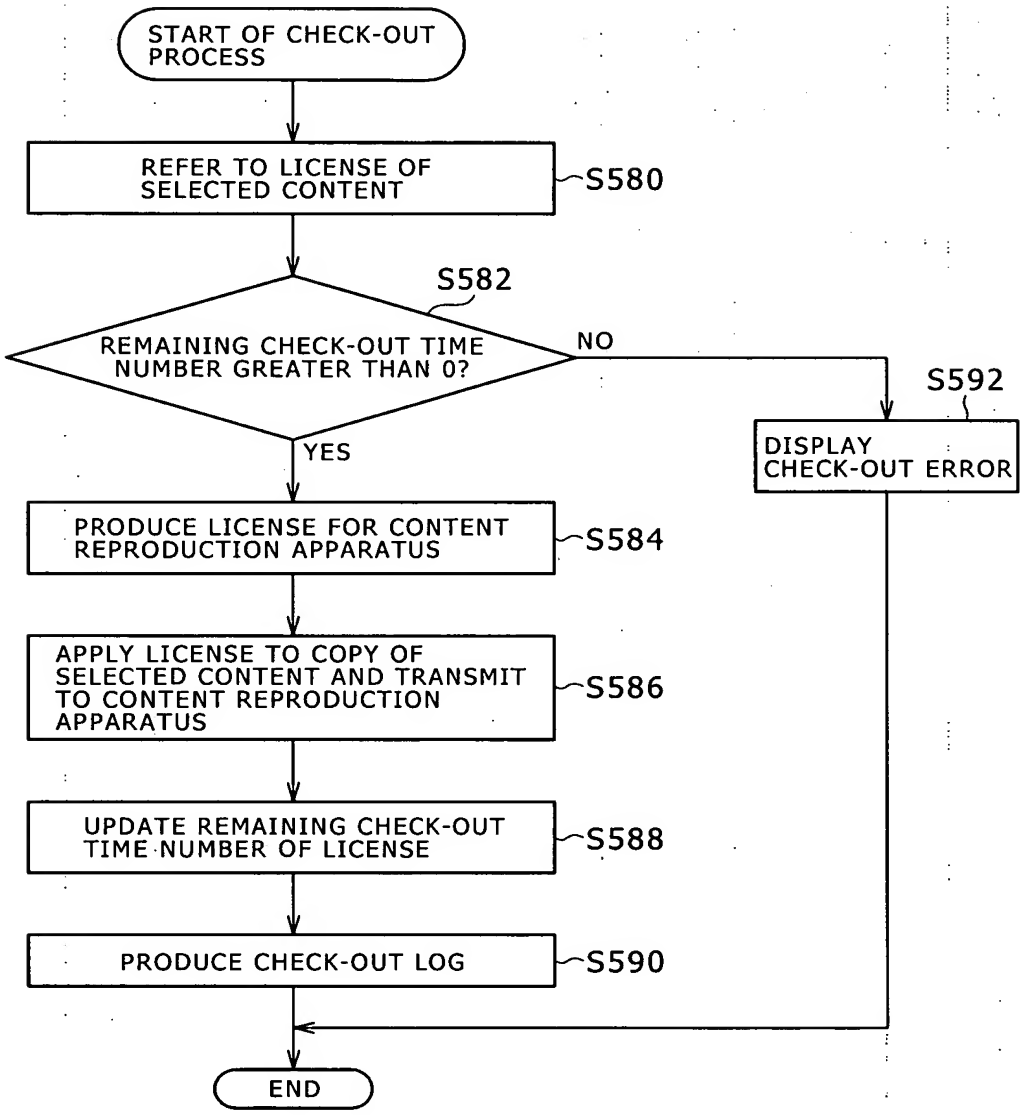
START OF CHECK-OUT PROCESS
REFER TO LICENSE OF SELECTED CONTENT
S580
S582
REMAINING CHECK-OUT TIME NUMBER GREATER THAN 0?
NO
YES
S592
DISPLAY CHECK-OUT ERROR
PRODUCE LICENSE FOR CONTENT REPRODUCTION APPARATUS
S584
APPLY LICENSE TO COPY OF SELECTED CONTENT AND TRANSMIT TO CONTENT REPRODUCTION APPARATUS
S586
UPDATE REMAINING CHECK-OUT TIME NUMBER OF LICENSE
S588
PRODUCE CHECK-OUT LOG
S590
END

FIG. 53

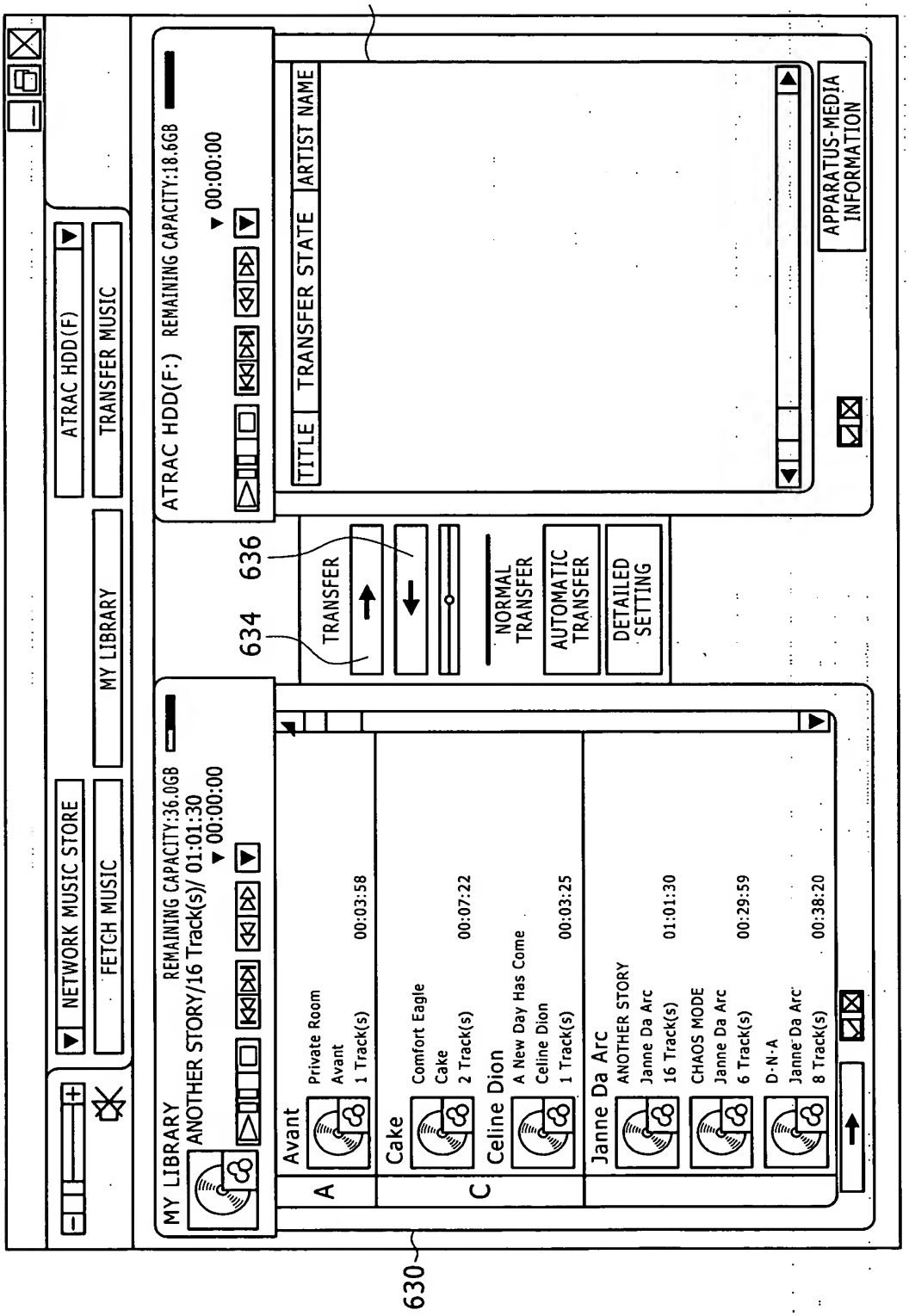
632
630
634
636
NETWORK MUSIC STORE
FETCH MUSIC
MY LIBRARY
ATRAC HDD(F)
TRANSFER MUSIC
MY LIBRARY
ANOTHER STORY/16 Track(s)/ 01:01:30
REMAINING CAPACITY:36.0GB
00:00:00
ATRAC HDD(F:) REMAINING CAPACITY:18.6GB
00:00:00
TRANSFER
NORMAL TRANSFER
AUTOMATIC TRANSFER
DETAILED SETTING
TITLE
TRANSFER STATE
ARTIST NAME
APPARATUS-MEDIA INFORMATION
A
Avant
Private Room
Avant
1 Track(s)
00:03:58
C
Cake
Comfort Eagle
Cake
2 Track(s)
00:07:22
Celine Dion
A New Day Has Come
Celine Dion
1 Track(s)
00:03:25
Janne Da Arc
ANOTHER STORY
Janne Da Arc
16 Track(s)
01:01:30
CHAOS MODE
Janne Da Arc
6 Track(s)
00:29:59
D-N-A
Janne Da Arc
8 Track(s)
00:38:20

FIG. 54

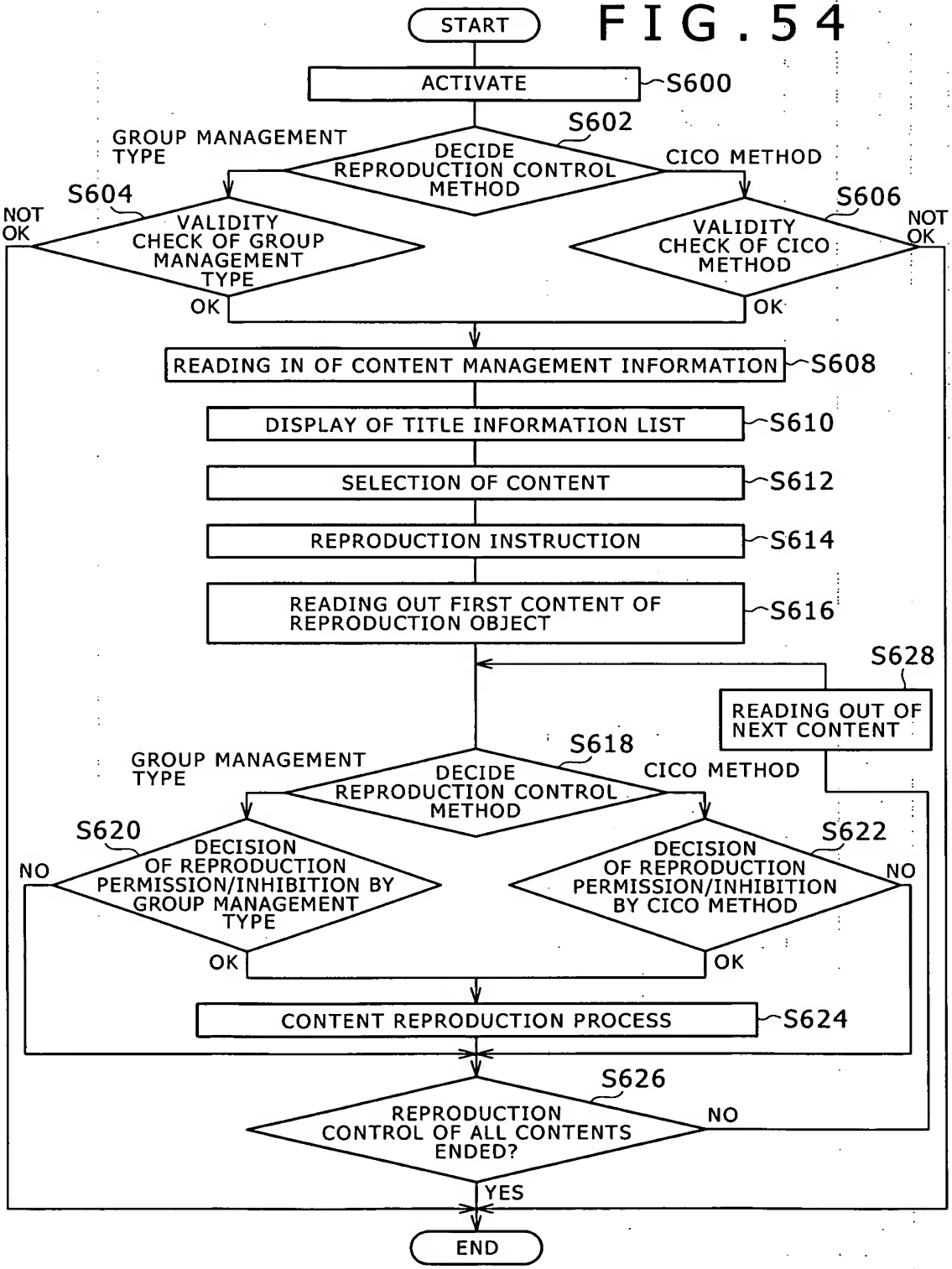
START
ACTIVATE
S600
S602
DECIDE REPRODUCTION CONTROL METHOD
GROUP MANAGEMENT TYPE
CICO METHOD
S604
VALIDITY CHECK OF GROUP MANAGEMENT TYPE
NOT OK
OK
S606
VALIDITY CHECK OF CICO METHOD
NOT OK
OK
READING IN OF CONTENT MANAGEMENT INFORMATION
S608
DISPLAY OF TITLE INFORMATION LIST
S610
SELECTION OF CONTENT
S612
REPRODUCTION INSTRUCTION
S614
READING OUT FIRST CONTENT OF REPRODUCTION OBJECT
S616
S628
READING OUT OF NEXT CONTENT
S618
DECIDE REPRODUCTION CONTROL METHOD
GROUP MANAGEMENT TYPE
CICO METHOD
S620
DECISION OF REPRODUCTION PERMISSION/INHIBITION BY GROUP MANAGEMENT TYPE
NO
OK
S622
DECISION OF REPRODUCTION PERMISSION/INHIBITION BY CICO METHOD
NO
OK
CONTENT REPRODUCTION PROCESS
S624
S626
REPRODUCTION CONTROL OF ALL CONTENTS ENDED?
NO
YES
END

FIG. 55

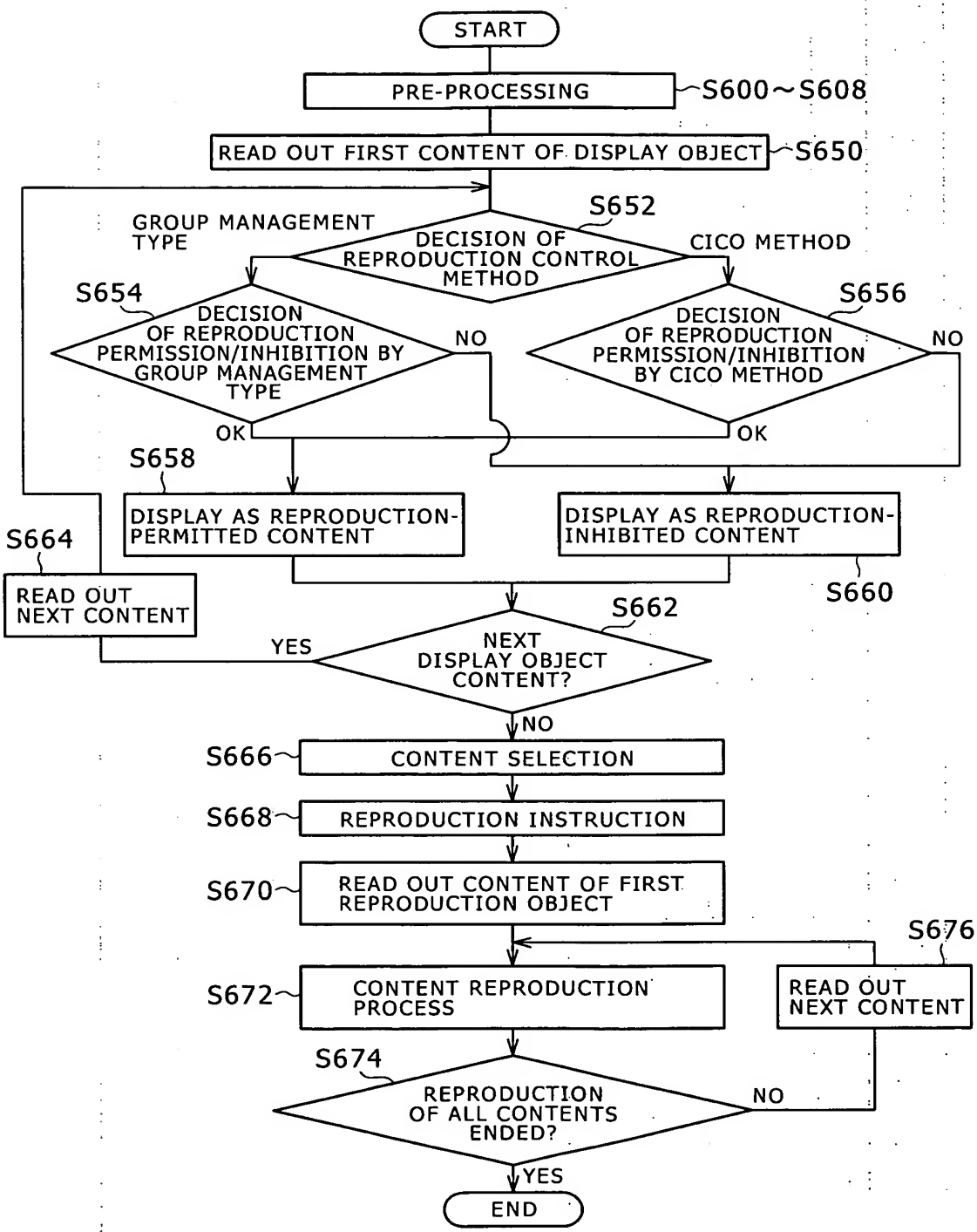
START
PRE-PROCESSING
S600~S608
READ OUT FIRST CONTENT OF DISPLAY OBJECT
S650
S652
GROUP MANAGEMENT TYPE
DECISION OF REPRODUCTION CONTROL METHOD
CICO METHOD
S654
DECISION OF REPRODUCTION PERMISSION/INHIBITION BY GROUP MANAGEMENT TYPE
NO
OK
S656
DECISION OF REPRODUCTION PERMISSION/INHIBITION BY CICO METHOD
NO
OK
S658
DISPLAY AS REPRODUCTION-PERMITTED CONTENT
DISPLAY AS REPRODUCTION-INHIBITED CONTENT
S660
S664
READ OUT NEXT CONTENT
S662
YES
NEXT DISPLAY OBJECT CONTENT?
NO
S666
CONTENT SELECTION
S668
REPRODUCTION INSTRUCTION
S670
READ OUT CONTENT OF FIRST REPRODUCTION OBJECT
S676
S672
CONTENT REPRODUCTION PROCESS
READ OUT NEXT CONTENT
S674
REPRODUCTION OF ALL CONTENTS ENDED?
NO
YES
END

FIG.56A

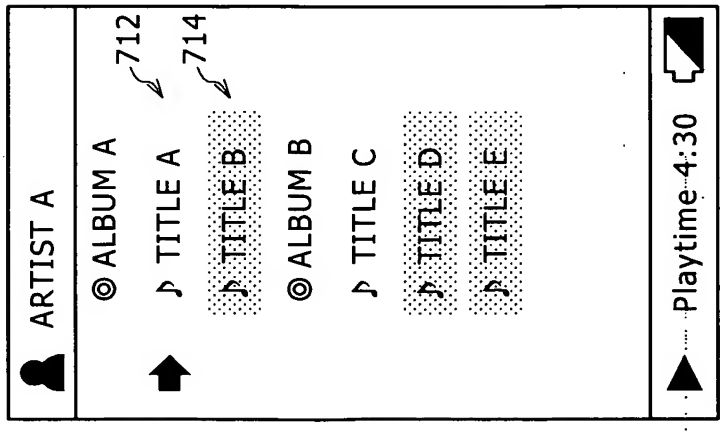

FIG.56B

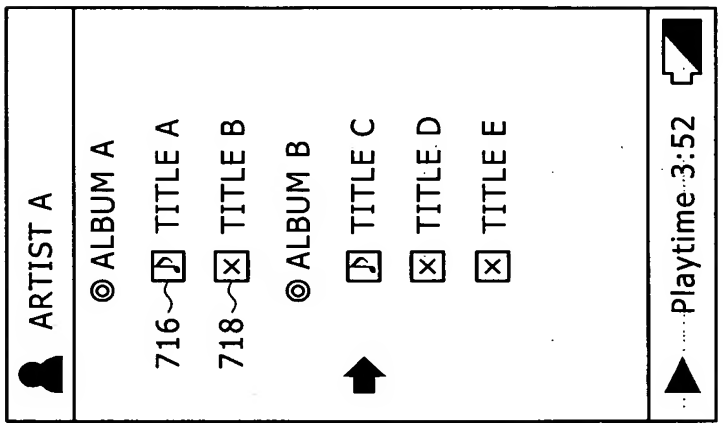
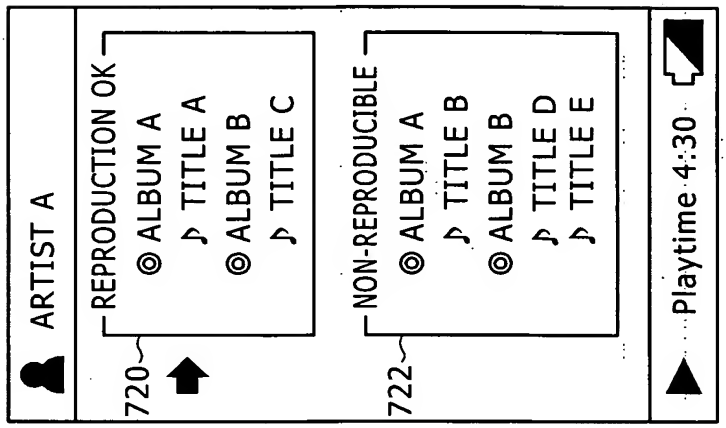
FIG.56C